

Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (Tuesday, 10/14): 41,022 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: \$38.0-43.0 per MWh, Ave. = \$40
- Approximate change from previous week \$+1.3 per MWh
- "Normal" price range, before 5/00 \$20-\$40 per MWh
- Petroleum, West Texas Intermediate: \$28.40 per barrel (year ago: \$28.97)
- Seattle gasoline price (9/29) \$1.80 per gallon (year ago \$1.45),
- Natural gas, Sumas Hub: \$4.00 per million British Thermal Units (year ago \$2.68)
- Approximate change from last week. Oil: +1.44 per barrel; Nat. gas: -.14 MMBtu

3. California Electricity Situation

- CA ISO Alert Status
 - o A stage 1 alert (7% reserve margin) was declared on May 28, 2003.
 - o A stage 2 alert (5% reserve margin) was declared on July 10, 2002.
 - o Most recent rotating blackouts: Tuesday, May 8, 2001
- Energy News Headlines from California and the Nation
 - o Task force warns of natural gas crunch (New York Times, Sept 30)
 - o Legislators dispute renewable fuels. (New York Times, Sept. 30)

4. River and Snowpack Information (Updated Sept. 19, 2003)

- Observed August stream flow at The Dalles: 66.7% of average
- Observed August precipitation above the Dalles: 56% of average

5. Energy Conservation Achievement (Updated Aug. 19, 2003)

- **State Agencies:** From April to June 2003 electrical usage was 15.3 % less and natural gas usage was 10.9% less compared to the same period in 2000.

6. Power Exchanged: (Oct. 14, 2003)

- Average flow of power during the last 30 days
 - o California (exported to) 2,245 MW
 - o Canada (exported from) 137 MW
 - o Net power export: 2,382 MW

Tuesday October 14, 2003

Task Force Warns of Natural Gas Crunch

Natural gas shortages and price spikes, if not dealt with in the years ahead, could threaten Americans' livelihoods and quality of life and force energy-dependent industries and jobs overseas, a Republican congressional task force concludes.

The group of House GOP lawmakers was issuing a report Tuesday that paints a sobering picture of economic tough times ahead if "the growing imbalance between the supply and demand for natural gas" is not corrected.

The report, which focuses heavily on the need for increased production and gives short shrift to conservation, is being released as lawmakers move toward approval of the first overhaul of America's energy agenda in a decade.

The conclusions of the GOP task force, which was assembled by House Speaker Dennis Hastert in July, are certain to come under criticism from Democrats who have maintained that congressional Republicans are intent on promoting a political agenda of drilling in environmentally sensitive areas now off limits, including much of U.S. coastal waters.

While the report does not address specifically the need to lift drilling bans that now cover most of U.S. Outer Continental Shelf, it makes clear that current limits on exploration and development should be re-examined.

The GOP task force concludes that fixing the natural gas supply problem will require measures beyond what are being considered in the pending energy legislation, including lifting some of the development restrictions now in place, according to a summary document and sources familiar with the entire report.

The report criticizes years of accepting "schizophrenic policies" that on the one hand promoted natural gas use because of its environmental benefits and on the other restrict its development because of environmental concerns.

Fixing the problem will be a long-term job, the task force says, reflecting a similar conclusion in a report issued last week by a group of oil and gas industry executives who advise the Energy Department.

"There are few viable options available to us in the short term to forestall inevitable economic pain for millions of Americans," Reps. Billy Tauzin of Louisiana and Richard Pombo of California, the co-chairs of the task force, write in a cover letter to the report.

The GOP group urges streamlining of federal oil and gas lease programs and an easing of the permit process, and calls for programs that promote North American gas development, including Alaska's massive gas resources.

"Our findings are stark," Tauzin and Pombo write. "The United States is on trajectory towards an energy future which threatens Americans' livelihood and quality of life, and puts at peril our national manufacturing and industrial base."

"Without radical correction the present course will have far-reaching impacts on our economy (including) ... a massive outflow of energy-dependent industries and the jobs they support," they write.

Tuesday October 14, 2003

Hastert had directed a review of what he called an impending natural gas crisis so that Congress could respond with legislation. Last spring and early summer gas was selling at more than \$6 a thousand cubic feet at wholesale and the Energy Department warned that gas inventories were at dangerously low levels. Shortages were possible this winter, the department said.

Since then, gas supplies have increased to near normal levels and prices have dropped to the \$4.50 range. But the volatility of the natural gas markets was demonstrated again on Monday as an unusually cold day caused the prices for gas to be delivered in December and January to jump to as much as \$5.30 a thousand cubic feet.

Last week a report issued by the National Petroleum Council, a group that advises the Energy Department, said gas prices could range from \$5 to \$7 a thousand cubic feet for years to come. It also warned of supply problems if there is not more production in new areas, but said for the short term the only answer is for people to use less of the fuel.

Legislators Dispute Renewable Fuels

Disputes over whether power companies should be made to use renewable fuels to make electricity and about liability protection for makers of a water-contaminating gasoline additive are complicating negotiations over a far-reaching energy bill.

Fifty-three senators, including eight Republicans, urged Monday that electric utilities be required to make at least 10 percent of their power from solar panels, wind turbines, biomass, geothermal energy and other non-hydro renewable sources.

A Republican partial draft of the legislation left out such a requirement although it had been in a Senate-passed bill. Aides to Sen. Pete Domenici, R-N.M., energy conference chairman, said there are no plans to put it into the bill being worked out with the House.

"A majority of the House (negotiators) are strongly opposed to it," said an aide to the senator. Most of the Republicans, including Domenici, involved in the energy talks, also oppose such a provision. Democrats could try to get it in the final bill, but they are likely to be overruled by Republicans, who hold a majority in the talks.

Rep. Billy Tauzin, R-La., who is leading the House negotiators, said the renewable fuels requirement would "penalize consumers in my state" and other areas where renewable fuel sources are not easily available. "My guess is it's not going to be in the (energy conference) report," he told reporters.

Tauzin said "we're very close" to a compromise that would resolve the dispute between the House and Senate over the future of MTBE, a petroleum-based gasoline additive that many senators want banned because it has been found to contaminate groundwater from California to New England.

But some key House Republicans, including Majority Leader Tom DeLay of Texas, not only oppose to a ban but want MTBE manufacturers to be protected from any lawsuits from the chemical leaking into water supplies. The industry has pushed hard for the legal protection.

DeLay has sought a meeting with Domenici to discuss the issue, but Marnie Funk, a spokeswoman for the senator, said late Monday that no such meeting is on Domenici's schedule. DeLay, whose district includes MTBE manufacturers, is not part of the energy conference and has been accused by Democrats of trying to inject himself into the talks.

Tuesday October 14, 2003

Environmentalists and many senators from states where there has been MTBE contamination fear a waiver would let the MTBE makers off the hook. The industry says the waiver would be limited and cover only product defect cases, and not misuse of the product such as allowing leakage into waterways and groundwater.

The MTBE provisions are part of a package of automobile fuel proposals that also includes a requirement to double the use of corn-based ethanol as a gasoline additive, a measure widely popular among both Republicans and Democrats.

On the issue of renewable energy use by power plants, electric utilities have lobbied aggressively against the so-called "renewable fuels standard" which would require them to make 10 percent of their power from non-fossil, non-hydro energy. They argue that some utilities would find it hard to comply because of a shortage of renewable energy sources in some regions, leading to higher electricity costs.

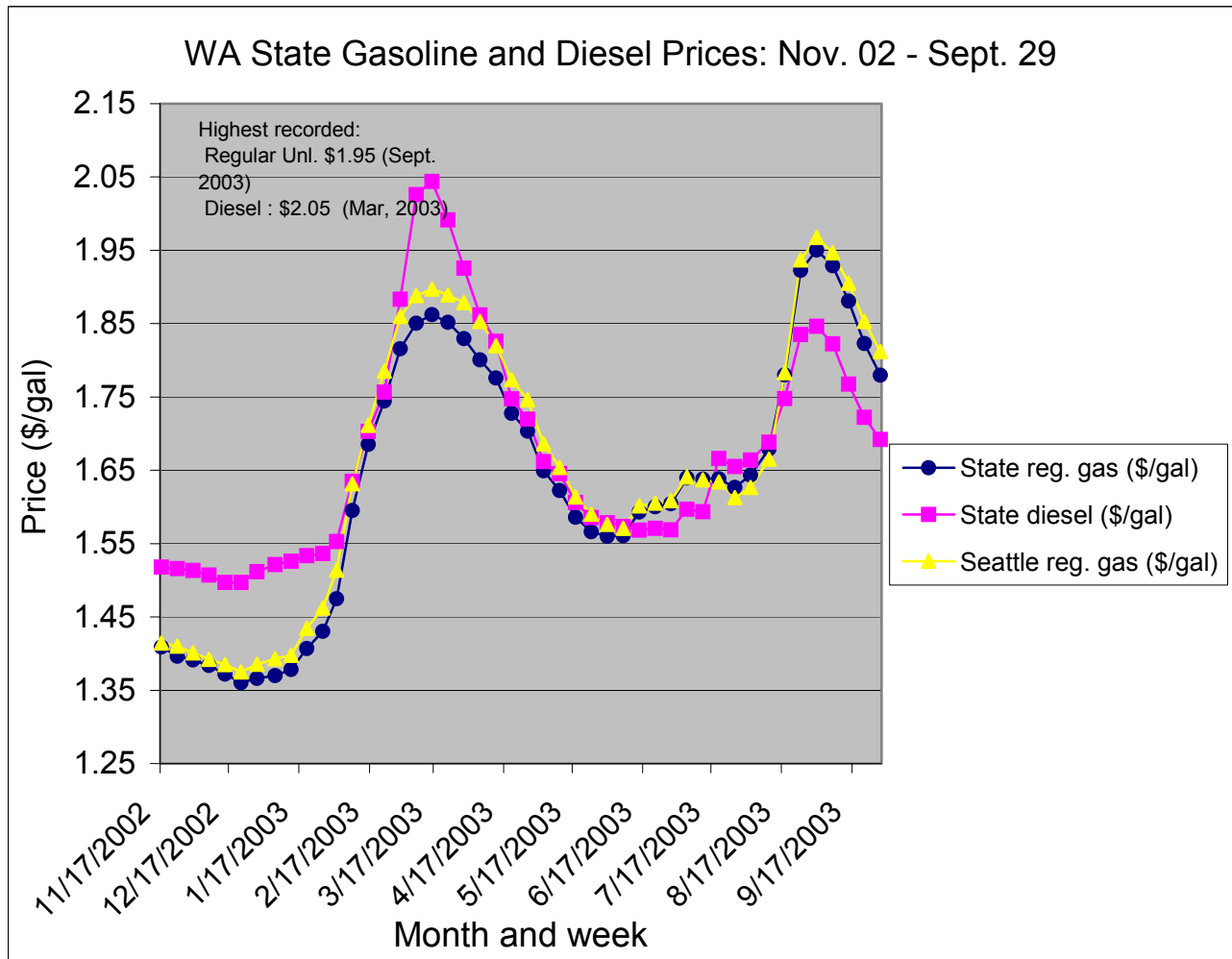
The industry maintains the issue should be left to states.

Separately, Domenici and Tauzin released a revised draft Monday, covering much of the proposed bill, except for the ethanol/MTBE section, electricity transmission issues and tax issues.

The draft included measures aimed at beefing up guard forces at nuclear power plants. Guards for the first time would be authorized to use deadly force and be given access to upgraded weapons. The penalty for acts of sabotage at a nuclear power plant would be increased from \$10,000 to \$1 million.

Tuesday October 14, 2003

Gasoline prices have declined sharply over the last month, dropping about 18 cents per gallon.



Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (Tuesday, 10/21): 42,029 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: \$32.9-43.4 per MWh, Ave. = \$40.5
- Approximate change from previous week \$+1.3 per MWh
- "Normal" price range, before 5/00 \$20-\$40 per MWh
- Petroleum, West Texas Intermediate: \$30.55 per barrel (year ago: \$28.97)
- Seattle gasoline price (10/20) \$1.65 per gallon (year ago \$1.40),
- Natural gas, Sumas Hub: \$4.40 per million British Thermal Units (year ago \$3.34)
- Approximate change from last week. Oil: -1.40 per barrel; Nat. gas: +.15 MMBtu

3. California Electricity Situation

- CA ISO Alert Status
 - o A stage 1 alert (7% reserve margin) was declared on May 28, 2003.
 - o A stage 2 alert (5% reserve margin) was declared on July 10, 2002.
 - o Most recent rotating blackouts: Tuesday, May 8, 2001
- Energy News Headlines from California and the Nation
 - o Bill conserves mostly pork (LA Times, Oct 21)
 - o State loses protests on energy accords. (Sacramento Bee, Oct 18)
 - o Diesel-electric buses hit the streets next year. (Seattle PI, Oct. 21)

4. River and Snowpack Information (Updated Oct. 14, 2003)

- Observed September stream flow at The Dalles: 63.4% of average
- Observed September precipitation above the Dalles: 88% of average

5. Energy Conservation Achievement (Updated Aug. 19, 2003)

- **State Agencies:** From April to June 2003 electrical usage was 15.3 % less and natural gas usage was 10.9% less compared to the same period in 2000.

6. Power Exchanged: (Oct. 21, 2003)

- Average flow of power during the last 30 days
 - o California (exported to) 2,038 MW
 - o Canada (exported from) 430 MW
 - o Net power export: 2,468 MW

Bill Conserves Mostly Pork

LA Times, Oct. 21

The national energy bill getting its finishing touches in a House-Senate conference is a pork-barrel exercise in subsidy politics. There's something big in it for every corner of the power industry — absent conservation — and something for the district of every lawmaker whose vote is needed to get the bill passed. Republican leaders set the cost of the bill's tax incentives at \$16 billion, but the real cost could mushroom to more than \$60 billion when product liability exemptions, proposed natural-gas price supports and other indirect costs are calculated.

Here's what the measure isn't: a forward-looking policy to encourage thoughtful development of new domestic energy sources and promote conservation, the fastest way to reduce dependence on foreign oil.

If the current bill survives the Senate-House conference committee, Congress should reject it or the White House should veto it. Energy Secretary Spencer Abraham said as much last month in a letter to Congress that set \$8 billion in tax credits as the upper limit. Abraham wrote: "Maintaining fiscal discipline remains crucial to returning the budget to balance."

What Americans would get from the bill unfortunately depends on where they live. Comprehensive energy legislation is always a pork target because legislators all want something for their backyards. In this bill, Sen. Norm Coleman (R-Minn.) would get an \$800-million coal gasification plant mainly intended as a source of jobs. Sen. Larry E. Craig (R-Idaho) is counting on a \$1-billion nuclear reactor project — no matter that the nuclear industry hasn't figured out how to safely dismantle its existing plants. Sen. Tom Daschle (D-S.D.) is leading his corn-growing state's charge for increased use of the costly fuel additive ethanol — a mandate for which California motorists would pay dearly.

The committee isn't forgetting close friends in the energy industry. The bill would reinstate a multimillion-dollar tax break for companies that sink natural gas wells in coal beds — even though many of the wells already make a profit. And it would shield from lawsuits the producers of the fuel additive MBTE, which is polluting groundwater in California and a few other states.

The money-grubbing has gotten so extreme that the bill is in danger of stalling as House and Senate Republicans bicker over who gets the most pork. The best thing to do is to drop the sorry business and start over next year. Congress should encourage real debate on a national energy policy that dares to promote conservation and renewable power, as well as cleaner power from traditional sources.

State loses protest on electricity accords

FERC says California has no standing to object to the price-gouging settlements.

By David Whitney, Sacramento Bee, Oct. 18, 2003

The Federal Energy Regulatory Commission said this week that it is dismissing all objections by California to a series of financial settlements with electricity generators under investigation for manipulating the state's power markets two years ago.

Wednesday October 21, 2003

The agency said that because the settlements grew out of an investigative proceeding, there is no provision for other parties to intervene.

The regulatory agency is in the process of settling a host of manipulation allegations, the largest of which was with Reliant Energy Services for up to \$50 million.

That deal, the largest in FERC history, was approved by the commission Oct. 2.

Meanwhile a series of smaller settlements, together adding up to less than \$3 million, have been recommended by the agency's staff and are awaiting approval by an administrative law judge and the full commission. The state of California has raised concerns about these settlements, saying they reflect a pattern at the regulatory agency to settle low and without consideration of the full extent of the damage to which each individual abuse contributed.

The agency said such concerns cannot be addressed because the settlements related to its investigation should not be subject to review based on the concerns of parties outside the investigation.

"Given the commission's conclusions that these proceedings should be treated as investigations, it follows that there can be no 'parties' and thus no interventions," the commission said, adding that it was rescinding any orders to the contrary it had issued in the past few months.

The panel's lone Democrat, William Massey, disagreed with the decision, saying that much of the evidence the commission used in its investigation came from the California interests that were being denied a voice in the settlements.

"The California parties are integral to the assessment of and weight to be given the evidence," Massey said.

The settlements at issue stem from the investigation into manipulative practices in violation of tariffs and agency rules and regulations.

The Reliant settlement was the result of evidence that the company had schemed with traders at BP Energy to raise power prices. BP Energy earlier had agreed to a \$13.8 million settlement.

While the state eventually will share in the proceeds of the settlements, the commission also has pending a proceeding in which California seeks nearly \$9 billion in refunds for losses it attributed to illegal price gouging.

In that separate proceeding, the commission issued two other rulings clearing the way for the operators of the state's electricity grid to run the computer models necessary to calculate the final refund amount.

While FERC earlier this year said it had hoped to have the California cases resolved in 2003, it now appears that the computer models will not be completed until early next year. That would delay a refund order to as late as next spring, with court appeals expected to follow soon after.

Diesel-electric buses hit streets next year

Hybrids will save money in long run, transit officials say

THE ASSOCIATED PRESS, Seattle PI, Oct. 21

Less thick, black exhaust will spew from a new fleet of more than 200 diesel-electric hybrid buses the region's two biggest mass-transit agencies plan to roll out next year.

When the 60-foot articulated buses lurch into motion, they don't chug through fuel. At low speeds, they run on a hybrid electric drive, which King County Metro Transit expects will save 750,000 gallons of fuel and at least a half-million dollars a year.

"The reason you save so much fuel is that the bulk of what a bus does is starting and stopping," said Matthew Kester, a spokesman for General Motors Corp., which manufactures the hybrid electric drive at a transmission plant in Indianapolis.

As the bus speeds up, it uses a mix of electricity and diesel fuel. The diesel engine, made by Caterpillar Inc., takes over once the bus reaches 20 or 25 mph, Kester said yesterday.

"Because you're not dumping all the fuel through this diesel engine to get this bus moving, you're getting a 90 percent improvement on emissions (of soot, hydrocarbon and carbon monoxide)," Kester said. "Plus you've improved fuel economy by about 50 to 60 percent."

New Flyer, a Canadian bus manufacturer based in Winnipeg, Manitoba, makes the buses.

King County signed orders for 213 buses Friday, and Sound Transit, which runs regional express buses in King, Pierce and Snohomish counties, bought 22 -- a combined investment of more than \$150 million.

"Obviously, it's a technology we're excited about because of the cleaner air, the fuel savings and the maintenance savings," Sound Transit spokesman Lee Somerstein said.

The first new hybrids are expected to hit the streets by next spring.

Today in Seattle, General Motors Corp. plans to show off the 60-foot model that King County Metro Transit tested out before its recent purchase.

Hybrid buses cost more up front -- about \$645,000 apiece, compared with \$445,000 for a standard diesel-powered bus, Metro Transit spokeswoman Linda Thielke said.

But because they use less fuel, hybrid buses don't need their oil changed as often and are easier to maintain, General Motors estimates that the county will recoup its costs within about seven years.

Metro Transit bought its test model last year and put more than 40,000 miles on it before deciding to buy the new fleet.

"It performed remarkably well," Thielke said, noting it had plenty of power motoring up hills, ran quietly and required very little maintenance.

Sound Transit bought a 40-foot test model. "Our operations people just love it," Somerstein said. "They've had virtually no problems."

The hybrids will replace an aging fleet of dual-mode buses that run on overhead electric wires while they pass through the downtown bus tunnel, then switch to diesel outside the tunnel.

Because the new buses will have their own electricity supply, they'll no longer rely on those overhead wires while inside the tunnel, making them easier to maneuver.

Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (Tuesday, 10/28): 43,641 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: \$29.5-38.3 per MWh, Ave. = \$35.5
- Approximate change from previous week: \$-5 per MWh
- "Normal" price range, before 5/00: \$20-\$40 per MWh
- Petroleum, West Texas Intermediate: \$29.92 per barrel (year ago: \$27.10)
- Seattle gasoline price (10/28): \$1.62 per gallon (year ago \$1.38),
- Natural gas, Sumas Hub: \$4.03 per million British Thermal Units (year ago \$3.34)
- Approximate change from last week. Oil: -0.63 per barrel; Nat. gas: -0.37MMBtu

3. California Electricity Situation

- CA ISO Alert Status
 - o A stage 1 alert (7% reserve margin) was declared on May 28, 2003.
 - o A stage 2 alert (5% reserve margin) was declared on July 10, 2002.
 - o Most recent rotating blackouts: Tuesday, May 8, 2001
- Energy News Headlines from California and the Nation
 - o BPA reports a deal in lawsuit (Seattle PI, Oct.)
 - o Puget Sound Energy seeks rate hike. (Seattle PI, Oct. 24)
 - o Ethanol dispute threatens energy bill. (Seattle PI, Oct. 27)

4. River and Snowpack Information (Updated Oct. 14, 2003)

- Observed September stream flow at The Dalles: 63.4% of average
- Observed September precipitation above the Dalles: 88% of average

5. Energy Conservation Achievement (Updated Aug. 19, 2003)

- **State Agencies:** From April to June 2003 electrical usage was 15.3 % less and natural gas usage was 10.9% less compared to the same period in 2000.

6. Power Exchanged: (Oct. 28, 2003)

- Average flow of power during the last 30 days
 - o California (exported to) 1,976 MW
 - o Canada (exported from) 544 MW
 - o Net power export: 2,520 MW

BPA Reports Deal in Utilities Lawsuit.

The Bonneville Power Administration said yesterday it has reached a tentative lawsuit settlement that, if approved by all involved, could lead to a reduction in what the electrical wholesaler charges its utility customers.

That cut could also mean a break for residential and business ratepayers around the Northwest, although how much of one will depend on their particular utility and how much power it buys from the BPA.

The suits were sparked by what's known as residential and small- farm credits. Those are payments the BPA makes to for-profit utilities such as Puget Sound Energy and Avista as a way of sharing the benefits of the low-cost Northwest hydropower system.

The credits have been in place since 1980, but until recently had been made as cash payments. In the most recent rate case, the BPA proposed a change to a mix of power and cash. BPA spokesman Mike Hansen said 72 public utilities then filed suit, challenging whether the for-profit utilities were even entitled to actual electricity.

Under the agreement, the BPA will stretch out its delivery of credit payments from three years to eight years. That will save it \$269 million over the course of the current rate period, which runs until Sept. 30, 2006 (although that amount has simply been deferred to the 2007-11 rate period).

The BPA will save an additional \$200 million through an agreement in which Bonneville will pay a lower rate for buying back power from the for-profit utilities during the West Coast energy crisis.

The combination of those two savings will allow Bonneville to scrub a 2.2 percent increase in wholesale rates that took effect Oct. 1 and to reduce rates about 7.4 percent below the average for 2003. The BPA would make refunds starting in March to reflect the reduced rates.

But the BPA said that depends on everyone's signing off on the settlement, which they have to do in the next 120 days. The BPA said the Northwest's four governors and congressional delegation have endorsed the deal.

Tacoma Power Superintendent Steve Klein also endorsed the settlement, the BPA said. But Seattle City Light spokesman Dan Williams said the utility hasn't decided yet whether to support it.

The Snohomish County Public Utility District, which has been a vocal critic of the BPA and has argued that it should be cutting rates even without a settlement, said it is reviewing the proposal.

Puget Sound Energy spokeswoman Dorothy Bracken said the effect on that utility's ratepayers isn't known yet and won't be for a while; once the settlement is approved, the state Utilities and Transportation Commission would have to review any changes in rates.

Puget Sound Energy seeks rate hike

Seeking to offset increased power costs and recoup its planned investment in a new power plant, Puget Sound Energy on Friday asked state regulators for a 4.7 percent electrical rate increase.

The company announced Wednesday that it plans to spend about \$80 million to buy nearly half of a new 249-megawatt gas-fired power plant near Frederickson in Pierce County.

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"Puget has continued to experience above-average customer growth, even during this economic downturn," said Grant Ringel, a company spokesman. "It's a very good time to be in the market for power plants."

The increase, which also would offset other increased costs of power production, such as natural gas prices, would boost a typical monthly residential bill by about \$3.40, to \$62.25.

If the Washington Utilities and Transportation Commission approves, the increase would take effect April 1.

"Our utilities do have an obligation to serve, so they do need to meet that obligation when their territory is growing," said Marilyn Meehan, the commission's spokeswoman.

Puget Sound Energy generates only 25 percent of the power its customers use, Ringel said. Another 50 percent comes from long-term contracts, some set to expire soon. Buying generating capacity tends to decrease the risk that the company would be forced to buy expensive power on the short-term wholesale market.

At the company's winter peak, it estimates the output from the Frederickson plant would cover about 2 percent of its customers' demand.

The commission will conduct a lengthy review of the proposal, Meehan said. However, it will be limited to the cost of the plant and other power costs, and won't delve into the overall books of the company.

The company provides electricity to 972,000 residential and business customers, mostly in Western Washington.

Ethanol dispute threatens energy bill

By H. JOSEF HEBERT

Senate Republicans warned Monday that an impasse over ethanol taxes could scuttle the massive energy bill that Congress has struggled over for three years. Some participants in the talks fretted privately that the White House was not exerting enough pressure to resolve the dispute.

The standoff over ethanol between Sen. Charles Grassley, R-Iowa, and Rep. William Thomas, R-Calif., Congress' principal tax writers, showed no sign of being resolved, GOP Senate sources involved in the closed discussions said.

Meanwhile, Republicans in both the House and Senate have abandoned proposals to inventory oil and gas resources in off-limits coastal waters as part of the energy package. They also have become resigned that opening an Alaska wildlife refuge to oil drilling will not be part of an energy bill, other GOP sources said.

It has become clear that the two proposals, if left in the bill, could jeopardize its final approval in the Senate, the sources said.

And so could the conflict over ethanol taxes, congressional sources said Monday, speaking on condition of anonymity.

The carefully crafted ethanol package "is the glue that that keeps the big pieces (of the legislation) together. It falls apart without the glue," said a Senate Republican participant in the negotiations with the House over the final details of a broad blueprint for national energy policy.

Wednesday October 29, 2003

Lawmakers are considering a provision that would double the use of corn-based ethanol as a gasoline additive to 5 billion gallons a year by 2012. The measure has widespread political appeal and is the main reason many farm-state senators are expected to vote for the energy legislation.

Senate negotiators say, however, that a dispute between Grassley and Thomas over a tax proposal that would ensure the federal highway trust fund would be protected when more ethanol is produced has threatened to derail the entire energy legislation.

Grassley, who is leading the Senate side in the energy tax discussions, has insisted that the ethanol package include a provision that essentially would shift general revenue funds into the highway fund to make up for lost tax revenue from the increased use of ethanol, which is not taxed as high as gasoline. The federal highway trust fund, used for construction of roads, now is financed solely by gasoline tax.

Grassley has urged the White House to put more pressure on the House Republicans on an issue that is jeopardizing the energy legislation, a GOP tax negotiator said.

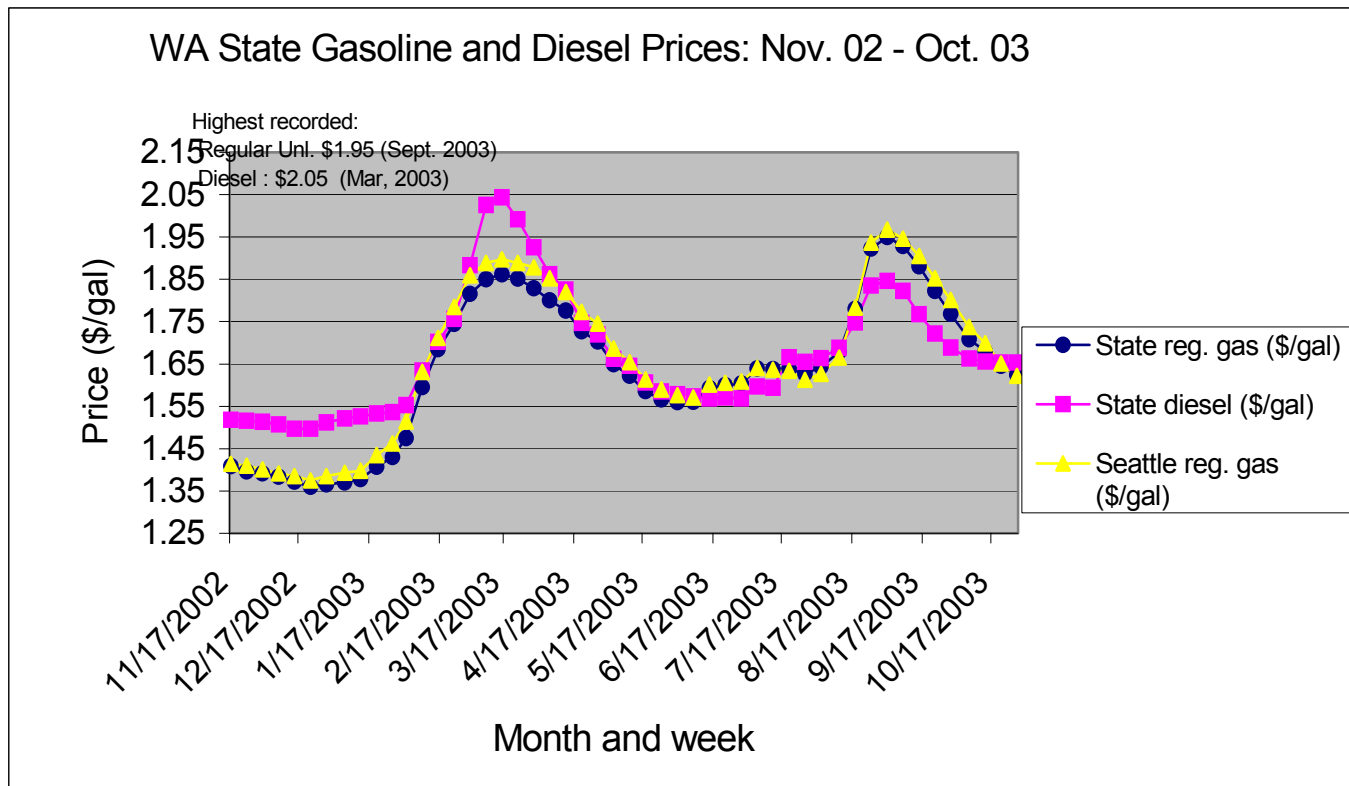
Senate GOP staffers released an analysis by the Congressional Budget Office on Tuesday that said if the Grassley proposal were not included in energy legislation, the highway trust fund would lose about \$4 billion over 10 years.

Thomas, chief tax negotiator on the House side, has refused to budge in his opposition to the Grassley proposal. He has argued that the issue should be taken up during debate on renewal of the highway fund in February.

Other senators have argued they want assurances now that the highway money will be protected as part of the ethanol proposal. There's no guarantee Thomas, whose opposition to ethanol has been demonstrated, will go along with the tax changes in February, they argue. If the safeguards on highway funding were not included, many senators might walk away from the legislation, one GOP staffer involved in the talks said.

Wednesday October 29, 2003

Fuel prices continue to decline: WA state gasoline and diesel prices continue to decline from the record price levels reached this summer. Typically prices decline in the fall as people travel less and demand for fuel eases significantly. The rate of the price decline has slowed recently, but prices should decrease for several more weeks



Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (Tuesday, 11/04): 49,575 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: \$31-38.5 per MWh, Ave. = \$36
- Approximate change from previous week \$+0.5 per MWh
- "Normal" price range, before 5/00 \$20-\$40 per MWh
- Petroleum, West Texas Intermediate: \$28.90 per barrel (year ago: \$27.10)
- Seattle gasoline price (11/03) \$1.60 per gallon (year ago \$1.38),
- Natural gas, Sumas Hub: \$3.98 per million British Thermal Units (year ago \$3.34)
- Approximate change from last week. Oil: -0.63 per barrel; Nat. gas: -0.05MMBtu

3. California Electricity Situation

- CA ISO Alert Status
 - o A stage 1 alert (7% reserve margin) was declared on May 28, 2003.
 - o A stage 2 alert (5% reserve margin) was declared on July 10, 2002.
 - o Most recent rotating blackouts: Tuesday, May 8, 2001
- Energy News Headlines from the Nation
 - o BPA proposal would reduce electricity rates by 10% (Spokesman Review, Nov. 1)
 - o Florida Power & Light vows to cut emissions. (Palm Beach Post, Oct. 31)
 - o Small firms turn to financial futures for fuel. (WSJ, Nov 3)
 - o State's new power plan approved (Sac. Bee, Oct. 29)

4. River and Snowpack Information (Updated Nov. 04, 2003)

- Observed September stream flow at The Dalles: 63.4% of average
- Observed October precipitation above The Dalles: 121% of average

5. Energy Conservation Achievement (Updated Aug. 19, 2003)

- **State Agencies:** From April to June 2003 electrical usage was 15.3 % less and natural gas usage was 10.9% less compared to the same period in 2000.

6. Power Exchanged: (Nov. 04, 2003)

- Average flow of power during the last 30 days
 - o California (exported to) 1,818 MW
 - o Canada (exported to) 595 MW
 - o Net power export: 2,413 MW

Tuesday November 4, 2003

BPA proposal would reduce wholesale electricity rates 10%

Spokesman review, Nov. 1

A proposed legal settlement backed by the Bonneville Power Administration would roll back wholesale electricity rates by almost 10 percent.

But Bonneville Power Administrator Steve Wright said all parties, including affected public utilities in the region, must sign the agreement within 90 days, finally approve it within 120 days and drop any legal action on special credits.

"The terms now on the table strike a balance of interest of all parties," Deputy U.S. Energy Secretary Kyle McSlarrow said. "I urge the utilities to sign the agreement."

Three utilities - Avista Corp., Puget Sound Energy and Vera Water and Power in Spokane Valley - have already signed off on the plan.

Kevin Wells, Vera's general manager, said if the agreement goes through, it could add up to a \$4- to \$5- break per month on his average customer's bill. Vera serves about 8,500 customers in Spokane Valley.

"It's in our customers' interest to get rate relief that's certain and immediate," Wells said.

Local utilities that buy power from Bonneville Power include Inland Power and Light, Vera, Modern Electric Water Co. and the city of Cheney. However, several of them, including Inland and Modern, signed contracts locking in a rate and exempting them from rate increases until 2007.

The federal power marketing agency provides about half the Northwest's electricity from hydroelectric dams in the Columbia Basin and one nuclear power plant in Washington.

The deal is intended to settle a legal challenge to changes in so-called residential and small-farm credits.

Those are payments Bonneville Power makes to for-profit utilities, such as Avista, to share the benefits of the low-cost Northwest hydropower system.

The credits have been in place since 1980 and until recently had been made as cash payments. But the agency's change to a mix of power and cash drew challenges from 72 public utilities, who questioned whether the for-profit utilities were entitled to the power.

Under the terms of the agreement, private utilities, including Avista, would agree to defer \$269 million in payments from Bonneville Power until 2007, when the agency's next rate period begins.

Those payments would then be subject to an annual floor of \$100 million and a limit of \$300 million. That compares with about \$400 million a year in current contracts.

Florida Power and Light Vows To Cut Gas Emissions

Palm Beach Post, Oct. 31

FPL Group Inc. said Tuesday it will reduce its greenhouse gas emissions 18 percent by 2008.

The company plans to improve the operating efficiency at its Seabrook, N.H., nuclear plant and fossil fuel plants and build or buy power from clean natural gas generators to offset older, less efficient operations.

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The Juno Beach-based company (NYSE: FPL, \$63.93) said it would also expand its wind energy operations run by its non-regulated energy subsidiary, FPL Energy LLC.

The reduction figures are based on a 2001 baseline, the company said.

FPL said it is the first electric company to voluntarily take these reduction measures, which it is doing as part of the Environmental Protection Agency's Climate Leaders Program

Small Firms Turn to Financial Futures for Fuel

Wall Street Journal, Nov. 3

Deregulated energy markets have taken their fair share of criticism in recent years. But that hasn't scared off some of the nation's small-business owners, who are betting that the wild and woolly world of the financial-futures markets will provide more price stability than the stodgy regulated utilities.

That's a big departure. Typically, small businesses have relied on the regulated utilities for their energy needs. But in the past three years, natural-gas prices have surged and the regulated utilities have been slow to find ways to put a lid on the trend. That's opened the doors to marketers that can use financial derivatives and fixed-rate contracts to offer stable pricing for customers.

By the end of this year, an estimated 550,000 commercial clients nationwide will have purchased fixed-price, natural-gas contracts through energy marketing middlemen, according to Kema, a consulting firm in Fairfax, Va., that researches retail-energy markets. That represents a 10% increase from two years ago.

"We are seeing slow and steady growth" in small businesses switching from utilities to deregulated energy marketers for fuel supplies, says Kema's natural-gas research director, Gerry Yurkevich.

In the past, only large industrial companies would take such risks. But an increasing number of small and midsize businesses, including property managers, hospitals and fast-food franchisees, are locking in a fixed price rather than watching their energy bills gyrate from month to month. If they're lucky, they will save money on fuel. But if a warm winter causes prices to collapse, they may end up spending more on natural gas than what utilities would charge.

But for most smaller businesses, natural-gas marketers have something to offer besides the possibility of lower prices: They can offer near-term price stability. This allows businesses to set their energy budgets for the year and not worry.

Mark Beffort, president of a real-estate-management concern in Oklahoma City recently made the switch. Instead of buying natural gas from the local utility for a 22-story suburban office tower he manages, he works with natural-gas marketer Clearwater Enterprises LLC. This past fall, Mr. Beffort called Clearwater and chewed over whether to buy natural gas for the winter or wait. "Do we want to lock or do we want to gamble?" he asked. Last month, a government report on levels of natural gas stored in reservoirs for winter use sent natural-gas prices down. At the urging of Clearwater, Mr. Beffort bought on the drop. He orally agreed to take enough natural gas to heat the office tower at a fixed price. Clearwater then locked in supply using a combination of futures contracts and fixed-price deals with producers.

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"Customers can fix their energy budgets at the beginning of the year," Mr. Yurkevicz says. "They can set it and forget it." By contrast, regulators set up rules that discourage utilities from hedging, making retail prices almost as volatile as natural-gas prices.

For most of the 1990s, natural-gas prices, as measured by tradable futures contracts on the New York Mercantile Exchange, held stable at about \$2.50 per million British thermal units. Since 2000, however, the price has whipsawed, and the average cost so far this year has exceeded \$5 per million BTUs.

Many marketing firms are targeting smaller and smaller commercial customers.

Peoples Energy Services, a unit of Chicago-based Peoples Energy Corp., reported its number of commercial clients jumped 20% to 13,073 for the year ended Sept. 30. Meanwhile, the company's average customer usage decreased by 9% to 3.2 million cubic feet, as the energy marketer takes on more smaller customers.

UGI Energy Services, a subsidiary of suburban Philadelphia-based UGI Corp., has more than quadrupled its number of customers since 1999. Over the same span, its average customer usage has dropped 13%, to 23 million cubic feet. "We view ourselves as risk managers," says UGI Energy Services President Bradley Hall. "What most people are looking for is stability."

That's what attracted customer Jeff Uhlenburg. His family-owned industrial furnace in Philadelphia had spent more than six months of its energy budget by mid-March, and high natural-gas prices forced him to switch to propane. "I got burned," he says. This summer, he switched to UGI, which buys natural-gas futures and supplies Mr. Uhlenburg natural gas at a fixed price.

Rather than fighting the trend, some regulated utilities are encouraging their customers to switch. The utilities continue to profit from transporting the natural gas. And often, the utility and energy marketer share a common corporate parent.

Oklahoma Natural Gas Co., a regulated utility owned by Oneok Inc., gained approval from the state earlier this year to permit even smaller customers than previously allowed to switch to a third-party marketer. The 97-year old utility last month began asking commercial clients as small as dry cleaners for permission to send their contact information to marketers. Oneok is hoping that commercial customers will choose to sign up with its unregulated subsidiary, Oneok Energy Marketing Co., to provide their natural gas.

State's new power plan approved

By David Whitney, Sac. Bee, October 29, 2003

Energy regulators said Tuesday that the operator of California's electricity grid can proceed with developing a new system to fix some structural problems that contributed to the statewide power crisis two years ago.

The Federal Energy Regulatory Commission approved the concepts behind a wholesale market redesign plan that the Folsom-based California Independent System Operator submitted for review 17 months ago.

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The plan is the successor to the state's failed deregulatory system that favored spot-market sales over long-term contracts. The new plan, portions of which already have been addressed by the commission, looks more broadly at how to get power to where it is needed so that last-minute shortages and congestion are minimized.

"The California Independent System Operator's filing represents significant progress and reflects a pragmatic approach to its market redesign effort," the commission said in its 96-page order.

While the market redesign plan is far from complete, the commission's action approves several of the key scheduling and pricing changes that the grid operator had sought.

Among these is a new system that will permit wholesale power to be priced differently in several dozen distribution zones around the state. Where power is in short supply or transmission lines are too constrained for the power to easily reach the localized areas where it is needed, prices will be the highest.

ISO spokesman Gregg Fishman said that approval of the "locational marginal pricing" plan is central to restoring efficiencies to the state power grid.

The system now will make it easier to identify problem areas a day in advance of developing shortages, so that steps can be taken to minimize disruptions, he said.

Fishman said the plan also should encourage the construction of power plants in places where they are most needed because the zones with the highest prices will lure generators looking for the highest returns on their investments.

The commission's order Tuesday also raised questions about many of the plan's details. The commission ordered meetings with utilities, generators and other interested parties to further define aspects of the 700-page plan.

But Fishman said that the commission's order came as good news at the ISO.

"It looks positive from the initial read," he said. "The devil is in the details and so we'll be reviewing the order in detail. But it looks like the commission has approved the largest components of our market design and we can move ahead on schedule to fix some of the flaws in the system."

The commission's action clears the way for the grid operator to develop the computer software and other systems to prepare a tariff structure that will be submitted later to federal regulators for approval.

Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (Tuesday, 11/11): 45,832 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: \$35-39.2 per MWh, Ave. = \$37.3
- Approximate change from previous week \$+1.3 per MWh
- "Normal" price range, before 5/00 \$20-\$40 per MWh
- Petroleum, West Texas Intermediate: \$31.15 per barrel (year ago: \$27.10)
- Seattle gasoline price (11/12) \$1.59 per gallon (year ago \$1.41),
- Natural gas, Sumas Hub: \$4.26 per million British Thermal Units (year ago \$3.72)
- Approximate change from last week. Oil: +2.25 \$ per barrel; Nat. gas: +0.27\$ per MMBtu

3. California Electricity Situation

- CA ISO Alert Status
 - o A stage 1 alert (7% reserve margin) was declared on May 28, 2003.
 - o A stage 2 alert (5% reserve margin) was declared on July 10, 2002.
 - o Most recent rotating blackouts: Tuesday, May 8, 2001
- Energy News Headlines from the Nation
 - o Powerful turnaround helps BPA build funds (Oregonian, Nov. 2)
 - o Bigger role urged for state in power grid. (Sacramento Bee, Nov. 5)
 - o Our warming world: Effects of climate change bode ill for Northwest. (PI, Nov 13)

4. River and Snowpack Information (Updated Nov. 04, 2003)

- Observed September stream flow at The Dalles: 63.4% of average
- Observed October precipitation above The Dalles: 121% of average

5. Energy Conservation Achievement (Updated Nov. 12, 2003)

- **State Agencies:** From July thru Sept. 2003 electrical usage was 8.9 % less and natural gas usage was 2.3% more compared to the same period in 2000.

6. Power Exchanged: (Nov. 12, 2003)

- Average flow of power during the last 30 days
 - o California (exported to) 1,820 MW
 - o Canada (exported to) 609 MW
 - o Net power export: 2,429 MW

Powerful turnaround helps BPA build funds

A wet spring and surplus electricity sales move the agency from a dismal outlook to a healthy financial picture

The Oregonian, Nov. 2, 2003

The Bonneville Power Administration, which began the year with a dire financial outlook, says it now has \$510 million in reserves even after sending the U.S. Treasury a check for nearly twice that amount.

The federal power marketing agency released preliminary financial results Friday for the year ended Sept. 30, saying it earned \$508 million. Revenues of \$3.6 billion were helped by record income from surplus power sales, the agency said.

The results represent a remarkable turnaround for Portland-based BPA, which sells wholesale power from 29 dams in the Columbia River basin and a nuclear plant near Hanford, Wash., and is the source of nearly half the Northwest's electricity.

In February, administrator Steve Wright told customers in the region that his agency faced a massive, five-year budget deficit, warned that BPA might miss a Treasury payment and called for an emergency rate increase of 15 percent.

But things soon changed. A wet spring provided enough water to generate more hydropower than the agency was contracted to provide. That allowed it to make profitable surplus sales. And, despite increased supplies, prices held up.

Also, pressured by utilities, the agency cut costs. And a debt-management program had a huge impact, cutting expenses \$463 million. BPA spokesman Ed Mosey said that without the debt-management steps, BPA would have reported net revenues of \$45 million instead of \$508 million.

Most of the cost savings came from a program in which BPA is refinancing privately held debt for the nuclear plant, the Columbia Generating Station, and other nuclear projects that were abandoned in the 1980s. Under the program, current debt is retired with lower-interest notes that will be repaid in the future.

That reduces BPA's immediate debt payments and aids the agency's bottom line. Under an agreement with Energy Northwest, which operates the plant, savings are used to retire other debt BPA owes to the U.S. Treasury.

As a result of all these positive developments, BPA was able to reduce its rate increase to 2 percent. The increase, which took effect Oct. 1, isn't reflected in the results reported Friday.

Publicly owned utilities that buy most of BPA's electricity have sued the agency, claiming there was no need for Wright to trigger a rate increase this year. But the strong year-end results were expected and didn't prompt much reaction.

"There's nothing incredibly surprising here," said Jerry Leone, manager of the Public Power Council representing 114 co-ops, municipalities and utility districts that depend on Bonneville for all or most of their electricity needs.

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However, Leone said it was "not a thrilling thing" for BPA to continue pushing debt into the future as part of its refinancing program. "They continue to borrow money and extend out the time they've got to pay the piper," she said.

BPA claims the program will actually save ratepayers money in the long run because of the favorable interest spread between the new and retired debt.

A spokesman for Northwest tribes said there was "no doubt that at least some of this financial improvement" came at the expense of salmon-recovery efforts in the basin, which BPA is obligated to finance under federal law.

"The right thing to do is that as Bonneville gets healthier, it should restore full funding to the fish and wildlife program," said Charles Hudson of the Columbia River Intertribal Fish Commission.

In its zeal to cut costs, Hudson said BPA is funding salmon programs at \$139 million a year, or about half the authorized level. A dozen stocks of salmon and steelhead in the basin are protected under the Endangered Species Act.

BPA continues to pay the U.S. Treasury back for past federal appropriations and loans used over time to build and maintain the Columbia River hydro system and the agency's transmission grid.

Mosey said BPA made a payment of \$1.06 billion in September, including \$315 million to retire some higher-cost debt early. Money for the prepayment came from the Energy Northwest debt refinancing program, he said.

Last year, BPA reported a loss of about \$29 million and ending reserves of \$188 million as it struggled to recover from the effects of a drought and market volatility during the Western power crisis of 2000 and 2001.

The agency is pushing to settle outstanding lawsuits with Northwest utilities over a series of contracts signed during the power crisis, saying a settlement could lead to a 10 percent rate decrease next year.

Bigger role is urged for state in power grid

Angelides calls for California to step in and build high-voltage lines and boost the planning effort.

By Carrie Peyton Dahlberg, November 5, 2003

State government should step forward to better plan -- and build -- more of the high-voltage power lines that form the backbone of the electric grid, state Treasurer Phil Angelides said Tuesday.

Supported by three consumer groups, Angelides said that public investment, in the form of bonds that would be repaid through utilities' electric rates, could be one of the best ways to shore up the grid and protect the state's energy future.

His Tuesday morning press conference echoed concerns that have been raised throughout state government and the energy industry that transmission planning had fallen by the wayside during the state's deregulation efforts.

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Debate about who should authorize new transmission lines and who should decide which ones are most urgently needed has been swirling for years. Several agencies have suggested they can best do the job, and free-market advocates have looked for ways to dangle incentives so that private builders would step in.

The Angelides plan also threw down a challenge to Gov.-elect Arnold Schwarzenegger, whose campaign had called for encouraging deregulation and dismantling the state Power Authority.

"We cannot afford in California to return to the dark and darkened days," Angelides said. "We cannot go back down the Pete Wilson highway of deregulation."

The transmission proposal is a sign that "the people who don't want a go-go free market are not going to go away quietly," said Mike Florio, an attorney for The Utility Reform Network. TURN and two other consumer groups backed Angelides' call to authorize the Power Authority to help fund needed high-voltage lines if no private company agrees to build them.

The incoming governor had no immediate comment on Angelides' ideas except to say that energy is an important issue and "we'll take a look at what the treasurer has suggested," said spokesman Rob Stutzman.

California badly needs better transmission planning, and it needs more power lines, said Sen. Debra Bowen, D-Marina Del Rey, chairwoman of the Senate Energy Committee. But it's much less clear whether the state should build those lines itself, she said.

"What's really needed is for the Legislature to hash this out without the interest groups," she said. "I really so greatly desire to get some things done" after the recent Legislative stalemate on many energy issues.

Jan Smutny-Jones, head of the Independent Energy Producers Association, said land-use issues, not money, have stood in the way of past transmission projects. "This has been a gray area for a while now," he said. Even in the late 1990s, when deregulation was launched, "we were trying to figure out how to clean this up."

Today, the state Energy Commission, the state Public Utilities Commission and the not-for-profit state Independent System Operator have a voice in transmission planning and decision making, and at different times all have pushed for greater roles.

Most recently, a draft Energy Commission report urged that the agency take over siting authority for power lines, potentially stripping the PUC of its role in granting utilities permission to build. The PUC takes a dim view of that idea.

Ultimately, the Legislature and the governor will have to sort out the conflicts, said one Energy Commission member.

"Anything that's done to draw more attention to this problem is a valuable service. This is the biggest electric infrastructure challenge the state faces," said Commissioner John Geesman.

Our Warming World: Effects of climate change bode ill for Northwest

By LISA STIFFLER AND ROBERT McCLURE

Juniper and honeysuckle are blooming earlier in the spring. Butterflies that can't stand a too-cold winter have taken up residence in the Tri-Cities. Snow levels are creeping higher up the sides of the Cascades. Glaciers are melting.

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These indications of a warming climate already have been measured in the Pacific Northwest. Long before the U.S. Senate took up the climate-change debate two weeks ago, scientists were warning that more changes are on the way.

"The time for plain speaking is long overdue," said Edward Miles, director of the University of Washington-based Climate Impacts Group. "We have never faced a problem like this."

From the crest of the Cascades to the bottom of Puget Sound, this region stands in coming decades to be transformed: shorter ski seasons. More winter flooding. Reduced summer water supplies. Increasingly destructive wildfires. Further-stressed salmon runs.

Never before has human society existed in a world where the concentration of heat-trapping carbon dioxide is as high as it is now -- the highest in at least 420,000 years.

Earth has been warming since the mid-1800s, say more than 600 researchers who prepared the most recent United Nations-sponsored evaluation of climate change. They say what appears to be abnormally high temperatures over the past 50 years are very likely traceable to the byproducts of an industrial society, including the carbon dioxide that comes from our cars and power plants.

"It's an accurate reflection of where the scientific community is to say, 'We done it,' " said Philip Mote, Washington state climatologist. "If your doctor told you there was a 95 percent chance that you were going to suffer X consequence if you don't take Y action, you wouldn't mess around hoping that 5 percent chance comes true."

Scientists aren't sure how hot it will get.

Much of that depends on how much people reduce emissions from factories, power plants, cars, buses and other sources of so-called "greenhouse gases" that trap heat in the Earth's atmosphere. But researchers say evidence that global warming is likely to cause major disruptions has grown considerably stronger in the past couple of years.

Only a handful of scientists who have seriously studied the matter doubt that significant and potentially destructive warming is coming.

This is not to say all the changes will be bad. In winter, you'll be able to breeze over mountain passes more often without chaining up. Winters, on average, will be warmer. Most springs, you'll be able to plant tomatoes earlier.

But make no mistake. Things are changing already, many in ways that bode ill, from the mountains to the Sound.

THE MOUNTAINS

About a dozen snow-moving machines sit behind the Traveler's Rest convenience store at Snoqualmie Pass, waiting for the winter snowpack that draws thousands of skiers and snowboarders up Interstate 90 each winter.

Nowadays, though, managers of the Summit at Snoqualmie ski resort are looking at the sky kind of worried. While the slopes there are the most convenient to Seattle, they also sit at about 3,200 feet above sea level. That makes it the lowest Washington ski resort -- the most vulnerable to global warming.

Scientists already have noted decreases in spring snowpack. With snow levels likely to rise at the rate of 300 feet for every degree of warming, a Snoqualmie skiing season that's now four months long on average stands to shrink to less than three months in 20 years, researchers say. In 40 years, it could be down to two months. Last year's opening, delayed nearly a month by lack of snow, could be a sign of things to come.

Imagine -- snowless in Snoqualmie.

"We rely 100 percent on natural snow," said Jon Pretty, the Summit at Snoqualmie marketing manager. "If Mother Nature isn't able to make it snow, we're de facto out of business."

Snow-making equipment may not be the answer, because even that generally requires temperatures to stay in the 20s or below.

"As diehard skiers and snowboarders, we think winter is already too short," said a recent appeal to Congress by a global warming-minded group of ski lodges, including Snoqualmie, called Sustainable Summits.

It's not just snow that's being affected. Ice is, too.

Old advertising slogans touted the North Cascades as "America's Alps." But the region's glaciers have lost some 30 percent of their girth in the last century, according to researchers from Nichols College in Dudley, Mass. They've been monitoring 117 North Cascades glaciers since 1984. All of them are receding. Seven have disappeared.

A big snow year in 1998-99 helped preserve them, although the dearth of snow last year again had many shriveling. The only ones that don't seem to be on the wane are those at high elevations, near the crest of the mountain range, said Rob Burrows, a geologist at North Cascades National Park and Recreation Complex.

"I don't think our glaciers are going to disappear in the next 50 years," he said.

Maybe not, but Nichols College's Mauri Pelto, who has been monitoring them longer than anyone, says most could be gone by then.

Just outside the park lies the continent's best-studied example of glacier-wasting. Some 25 miles northeast of Darrington, the South Cascade Glacier has lost a third of its mass in 45 years. The melt-off was particularly high from the mid-'70s to mid-'90s, reflecting a regional pattern. And U.S. Geological Survey scientists calculate that the glacier has probably lost two-thirds of its ice in the last century.

At Mount Rainier, it's a similar story -- the Nisqually glacier has drawn back nine-tenths of a mile since early in the last century. A series of ice caves that drew visitors to the glacier next door, Paradise, melted away by fall 1991.

These changes high in the mountains may seem profound. But really, in comparison to the rest of the problems we face, they're rather trivial.

THE RIVERS

Drill in hand, Craig Bates started perforating the floor in his sons' bedroom. He'd rather not damage the new addition to his mobile home, but a monster flood left him no choice.

When the Skagit River swamped the streets of Hamilton last month, it left the inside of his home coated with mud and silt. Despite being elevated 5 feet off the ground, it filled with knee-deep water.

The holes are needed to drain the standing water and mud. In yellow kitchen gloves and black rubber boots, four of Bates' seven children helped with the cleanup.

Bates, 33, who has lived in the small town east of Sedro-Woolley nearly all his life, called it the worst flooding he'd seen. A century-old house nearby that had never been touched by a flood was soaked in more than a foot of water.

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"The one in '90 was bad," he said, "but it wasn't this bad."

What happened last month could become more common. Climate experts predict that in the Northwest, climate change will bring wetter, warmer winters, increasing the risk of flooding. In the summer, rivers will likely run lower and warmer -- causing even more problems.

In the mountains, the snowpack acts like a bank. Water is deposited in fall and winter. It's withdrawn gradually over spring and summer as it melts and feeds streams. Warmer temperatures are expected to cause less of the precipitation to fall as snow, and more as rain, triggering earlier melting and depleting the snow sooner. These "rain-on-snow events" also are famously related to an increased risk of landslides.

Melted snow provides water for drinking, irrigation and maintaining river flows for threatened salmon. With snowpack becoming an unreliable investment, some water managers are looking for a safer place to put their aquatic savings. They're looking underground.

In Federal Way, officials with the Lakehaven Utility District hope one day to take water from the Green River when flows are high and pump it underground so it can be withdrawn when the mercury rises.

"Global warming is something that will reduce snowpacks, but not necessarily the rain we receive," said John Bowman, Lakehaven's water manager. "Storage becomes the key."

The utility is applying for permits so that the trial project can become a permanent resource. The aquifer can hold 9.5 billion gallons of water -- enough to fill Green Lake 23 times.

Seattle Public Utilities is in the middle of a two-year study with the UW's Climate Impacts Group to learn how climate change could alter water supply and demand. SPU now relies primarily on river water held in reservoirs and channeled to local faucets through diversion dams.

Dams statewide are blamed for disrupting river flow, withholding water needed by salmon and hindering their passage. Climate change could greatly exacerbate this problem. Or, with a massive shift in priorities, dams could lessen global warming's anticipated harm to fish.

On the Columbia River and its tributaries, water is released through the dams in the winter to produce energy when heaters click on and the region needs it the most. Power demand decreases in the summer and lake reservoirs are refilled for public recreation and to get ready for winter.

This strategy could be shifted. By storing more water through the winter, dam operators would have additional water available to compensate for the diminished snowpack and help salmon survive.

Such a major change would require approval from dozens of U.S. and Canadian dam operators. It likely would reduce power production and require a shift away from hydro to other energy sources. Some summer fishermen would be stranded by boat launches left high and dry.

Dam operators have resisted efforts to increase summer flows. As a result, dams already are being operated in July and August at flows below goals set for saving threatened Columbia salmon.

Analysts are researching the potential effects of climate change on this river system and what effect a shift in dam operations could have.

Drawing down reservoirs in the summer could also help reduce fall flooding.

It's too late to lessen Bates' hardship. Though he has deep roots in Hamilton, where his father is the mayor, he may pull up stakes to avoid an encore.

"I'm ready to move," said his 14-year-old daughter, Krissi. "This is too much to handle."

THE FORESTS

It's a 2,100-foot trudge up the Skyline Divide trail near Mount Baker -- a series of thigh-invigorating switchbacks under a dark forest cover. The reward: alpine meadows colored a gorgeous gold and red this time of year. And seemingly endless views.

But as the climate warms, places like this will become rare.

Mountain meadows form where the snow dump each winter is big enough that it makes it impossible for trees to seed and take root in the short growing season. Trees creep in, though, as snows dwindle.

One example is Paradise Meadows at Mount Rainier. In spots where you could clearly see the mountain in the early 1900s, the view is now partially blocked by trees.

The overall picture of how a warmer climate will affect the region's forests isn't clear.

"You may have completely opposite effects on different ends of the same valley," said climatologist Mote.

While climate change will undoubtedly have mixed effects, the meadows illustrate a general principle: The places likely to change the most are up high, where cold limits tree growth, and down at the lower tree line where dry, hot weather has the same effect.

At least part of what seems likely isn't pretty. Think dry. Think hot.

Think fire.

One prediction most scientists agree on: Expect more major wildfires.

The western Cascades have generally been spared the big blazes typical of Eastern Washington, the Sierras or the Southwest. But those are likely to become more common -- putting thousands of people living in forested communities such as North Bend and Leavenworth in harm's way.

Where chunks of forest are taken out by flames, non-native plants without natural enemies are more likely to move in, choking out the natural rebirth of forests. Fire and heat damage, and the stress of drought conditions, will probably leave trees more prone to invasion by insects that bore into the bark or chew up the leaves, scientists predict. Warmer temperatures could speed up their reproduction, and with fewer bug-killing cold snaps, it's more likely their invasions will go unchecked.

An overall hotter climate will bake the ground in the forests and cause trees to lose additional moisture. In some places, moisture-loving trees such as hemlocks won't survive.

"It gets too dry, trees start to die. Some of that happened this summer," said Jerry Franklin, a leading UW forestry scientist. "You're intensifying the Mediterranean nature of our climate, and by doing that you are knocking species off the table, at least at particular sites."

A big wild card in all this is that carbon dioxide levels will increase, and no one really knows how that will affect plants.

Taken on its own, it should feed the plants and enhance their growth. But if it gets too hot, that effect could counter the increased CO₂.

It is, Franklin said, "a critical source of uncertainty."

Down along the shoreline, the outlook is clearer.

THE SHORELINE

The city of Olympia could feel a little like New Orleans in the future. Not because residents are likely to trade geoducks for gumbo, but thanks to its potential to get brined.

As ocean levels continue to rise, the state capital is one of the area's most vulnerable locations with a large portion of the downtown built on low-lying fill.

And so, as was done years ago in New Orleans, Olympia could one day see the construction of dikes and pumps to keep the saltwater at bay.

Touring the thumb of land that extends into Budd Inlet, Emmett Dobey, a manager for the city's Public Works Department, points out spots at risk: the kayak rental shop, the city sewage-treatment plant, a radio station teetering over the inlet on stilts, an area of new development that hosts a farmer's market and provides housing for seniors.

As the Earth warms, the seas are heated, causing them to expand and sea level to rise. Melting glaciers and ice caps add to the increase.

Globally, sea level has risen as much as 10 inches over the past century and is expected to rise an additional 20 inches over the next 100 years, according to scientists.

With its steep and rocky shorelines, much of Washington is expected to withstand the rising tides. But some locations are further impacted by the movement of massive tectonic plates that slide over and under each other. The plate under Olympia and the South Sound is sinking deeper as water levels rise. Northern locations such as Neah Bay are lifting, keeping them ahead of the rising tides -- at least for a few decades.

In Olympia, the sea could rise more than a foot by 2050, or 3 feet by 2100. The city has a history of flooding during storms and high tides. Sea-level rise could make the problem more widespread and severe.

Also at risk for intruding saltwater, state officials say, are shorelines from Everett to Mukilteo and low-lying coastal cities such as Aberdeen and Hoquiam.

The rising sea level can cause shorelines to retreat and weaken bluffs, potentially causing homes to slide into the Sound.

In the long term, sea-level rise "has the potential for being a major problem," said Doug Canning, a state Ecology Department researcher who has studied climate change.

Olympia officials are taking the threat seriously. Besides monitoring water levels, they're relocating a sewage line that runs along the shore and could be below water in the future, hindering repairs.

More aggressive action could be warranted in the future, Dobey said, adding: "At least we're thinking about it."

And while rising sea water could send folks scrambling for higher ground, climate change could also make things uncomfortable for Northwest natives living under the sea.

THE OCEAN AND SOUND

At Pike Place Market, fishmongers send fresh salmon flying for photo-snapping tourists. But as ocean temperatures rise, could locally caught mahi mahi and marlin one day take to the air in lieu of chinook?

Already these and other warm-water species are cruising the Washington coast and Sound in small numbers, particularly during El Niño years when the water is unusually warm.

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Ocean sunfish have been spotted off the coast. Lizard fish and barracuda have been hooked off the Seattle waterfront. Other southern natives, including sardines and striped bass, have made the northward migration.

"Just with those little teases of El Niño ... there was major disruption," said Steve Jeffries, a marine mammal expert with the state Department of Fish and Wildlife.

The surface of the world's seas has already warmed since the late 1800s. Even slight changes in temperature can alter the complex weave of the marine food web.

The precise effect on the local marine environment and the animals living there is unclear. Ocean conditions are influenced by a complicated interplay between currents and climate, so scientists are unsure where and how warm temperatures will be.

Some fish already seem to be vanishing. Since the 1980s, Pacific cod have virtually disappeared from Washington waters. Overfishing contributed to the decline, but warmer water appears to have stifled their recovery, state experts said, because the fish were already at the southern end of their range.

Scientists worry about the effects of climate change on salmon that already are struggling to survive. More rain could scour rivers, washing away gravel and salmon eggs. In the summer, streams are likely to be slower flowing and warm enough to kill salmon.

Some of the marine transplants from the south are predators of baby salmon, including the hake and mackerel that scientists say have gorged on salmon migrating out of the Columbia River in El Niño years.

Millions have been spent on restoration of ailing salmon runs. But only recently has the effect of climate change been included in the strategies, making the success of past efforts less certain.

Proposed projects are being reviewed using models that predict how the environment might change so researchers can select those most likely to help salmon, regardless of what the future climate holds.

"It's a way to hedge against the uncertainty in the future," said Mary Ruckelshaus, head of recovery science for the National Marine Fisheries Service in Seattle. "We're hoping this case study will provide an example."

One change in the marine environment that is almost assured comes from the mountains.

Pollutants -- pesticides, heavy metals and long-lived poisons like PCBs -- circulate in the atmosphere.

They get trapped in falling snow and locked up in glaciers. As climate change increases the melting of glaciers, these toxins are released -- flowing into rivers, lakes and the Sound.

"We very likely will see an increase in contaminants that wind up in the food chain," said Jeffries, of Fish and Wildlife.

"The extraordinary richness of marine life is something we shouldn't tinker with," said Elliott Norse, president of the Redmond-based Marine Conservation Biology Institute. He's among those who support taking action to reduce the emission of greenhouse gases.

"What we need," he said, "is some combination of law and incentives so that people do the right thing."

Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (Tuesday, 11/20): 48,865 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: \$33.6-35.5 per MWh, Ave. = \$34.3
- Approximate change from previous week: \$-3 per MWh
- "Normal" price range, before 5/00: \$20-\$40 per MWh
- Petroleum, West Texas Intermediate: \$32.70 per barrel (year ago: \$27.10)
- Seattle gasoline price (11/19): \$1.61 per gallon (year ago \$1.41),
- Natural gas, Sumas Hub: \$4.14 per million British Thermal Units (year ago \$3.72)
- Approximate change from last week: Oil: +1.55 \$ per barrel; Nat. gas: -0.12\$ per MMBtu

3. California Electricity Situation

- CA ISO Alert Status
 - o A stage 1 alert (7% reserve margin) was declared on May 28, 2003.
 - o A stage 2 alert (5% reserve margin) was declared on July 10, 2002.
 - o Most recent rotating blackouts: Tuesday, May 8, 2001
- Energy News Headlines from the Nation
 - o Snohomish PUD rejects and kills BPA rate plan (Seattle PI, Nov. 18)
 - o China set to act on automotive fuel economy. (New York Times, Nov. 19)
 - o House passes energy bill. (Sacramento Bee, Nov 19)

4. River and Snowpack Information (Updated Nov. 04, 2003)

- Observed September stream flow at The Dalles: 63.4% of average
- Observed October precipitation above The Dalles: 121% of average

5. Energy Conservation Achievement (Updated Nov. 12, 2003)

- **State Agencies:** From July thru Sept. 2003 electrical usage was 8.9 % less and natural gas usage was 2.3% more compared to the same period in 2000.

6. Power Exchanged: (Nov. 19, 2003)

- Average flow of power during the last 30 days
 - o California (exported to) 1,865 MW
 - o Canada (exported to) 585 MW
 - o Net power export: 2,450 MW

Snohomish PUD rejects and kills BPA rate plan

Seattle PI, Nov. 19

Snohomish County Public Utility District commissioners have voted to reject - and, for now, kill - a Bonneville Power Administration plan to cut rates and settle a lawsuit.

The three commissioners voted unanimously to turn down the proposed one-year cut of 9.7 percent in rates charged by BPA to 72 utilities in the Pacific Northwest because they said it would not provide enough compensation for resolving the legal battle.

The public utilities went to court in 2001, accusing the federal power-marketing agency of illegally offering energy and monetary rebates to investor-owned utilities.

Under the proposed settlement, announced last month with support from at least three private utilities, all 72 utilities must agree to the terms by Jan. 21 for the deal to take effect.

Supporters include the governors of Washington, Oregon, Idaho and Montana and most of the region's congressional delegation.

BPA officials say the settlement would save the PUD \$35 million over three years, but PUD officials say that figure is misleading because part of the rate reduction would be achieved by deferring costs that would come due later.

"We're going to do the right thing," Commissioner Cynthia First said. "We cannot give up. We cannot listen to those people who say we're being crazy, because we have done our homework."

First and commissioners Dave Aldrich and Kathy Vaughn said the settlement would not adequately compensate the PUD for dropping the legal action.

General manager Ed Hansen said the PUD would save \$100 million to \$300 million if the lawsuit results in changes in BPA electricity distribution that favor public utilities.

Leaders of some other public utilities disputed the Snohomish PUD's reasoning.

"This settlement seemed like a reasonable compromise to bring some relief to the region," Tacoma Power Superintendent Steve Klein said. "If (the PUD) opposes the settlement, then tell us what's wrong with it or create an alternative."

Stuart Clarke of BPA asked in vain that the vote be delayed and offered to arrange for the head of the agency, Steven J. Wright, to meet individually with each commissioner.

"He doesn't understand your strong objections," Clarke said. "This is a significant issue, not just for the Snohomish County PUD but for the region as a whole."

The commissioners also spurned a request by Gov. Gary Locke, who asked them in a letter Monday to support the proposed agreement.

"(Settlement) will bring energy costs down in the short term, provide a needed stimulus to the Northwest economy, prevent the possible closure of many businesses, and provide certainty going forward as to BPA's obligations to residential and small farm customers of (private) utilities," Locke wrote.

After the meeting Wright issued a written statement saying he hoped the vote would not be the end of the matter.

"Utilities have until Jan. 21 for a final decision," he said. "We urge Snohomish (PUD) to reconsider, or at a minimum describe an alternative that's a better path."

China Set to Act on Fuel Economy

By KEITH BRADSHAW, NYT, November 18, 2003

The Chinese government is preparing to impose minimum fuel economy standards on new cars for the first time, and the rules will be significantly more stringent than those in the United States, according to Chinese experts involved in drafting them.

The new standards are intended both to save energy and to force automakers to introduce the latest hybrid engines and other technology in China, in hopes of easing the nation's swiftly rising dependence on oil imports from volatile countries in the Middle East.

They are the latest and most ambitious in a series of steps to regulate China's rapidly growing auto industry, after moves earlier this year to require that air bags be provided for both front-seat occupants in most new vehicles and that new family vehicles sold in major cities meet air pollution standards nearly as strict as those in Western Europe and the United States.

Some popular vehicles now built in China by Western automakers, including the Chevrolet Blazer, do not measure up to the standards the government has drafted, and may have to be modified to get better gas mileage before the first phase of the new rules becomes effective in July 2005.

The Chinese initiative comes at a time when Congress is close to completing work on a major energy bill that would make no significant changes in America's fuel economy rules for vehicles. The Chinese standards, in general, call for new cars, vans and sport utility vehicles to get as much as two miles a gallon of fuel more in 2005 than the average required in the United States, and about five miles more in 2008.

This country's economy is booming, and a growing upper class in big cities like this one is rapidly buying all the accouterments of a prosperous Western life, including cars. As China burns more fossil fuels, both in factories and in a rapidly growing fleet of motor vehicles, its contribution to global warming is also rising faster than any other country's.

But Zhang Jianwei, the vice president and top technical official of the Chinese agency that writes vehicle standards, said in a telephone interview on Monday that energy security was the paramount concern in drafting the new automotive fuel economy rules, and that global warming had received little attention.

"China has become an important importer of oil so it has to have regulations to save energy," said Mr. Zhang, who is also deputy secretary of the 39-member interagency committee that approved the rules at a meeting this month.

China was a net oil exporter until a decade ago, but its output has not kept up with soaring demand. It now depends on imports of oil for one-third of its needs, mainly from Saudi Arabia and Angola. Before the war, Iraq was also an important supplier. By comparison, the United States now imports about 55 percent of the oil it uses.

The International Energy Agency predicts that by 2030, the volume of China's oil imports will equal American imports now. Chinese strategists have expressed growing worry about depending on a lifeline of oil tankers stretching across the Indian Ocean, through the Strait of Malacca, a waterway plagued by piracy, and across the South China Sea, protected mainly by the United States Navy.

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Various Chinese government agencies still have three months to review the legal language in the fuel economy rules, giving automakers some time to lobby against them; as yet, there has been no mention of the approval of the new rules in the government-controlled Chinese media.

But Mr. Zhang said that the rules in draft form were the product of a very strong consensus among government agencies and that "the technical content won't be changed."

Two executives at Volkswagen, the largest foreign automaker in China, said that representatives of their company and of domestic Chinese automakers attended what they described as the final interagency meeting to approve the rules. Under pressure from the government, these auto industry representatives agreed to the new rules despite misgivings, the executives said. "They had no choice but to agree," one of the Volkswagen executives added.

The new standards are based on a vehicle's weight — lighter vehicles must go the farthest on a gallon — and on the type of transmission, with manual-shift cars required to go farther than those with less efficient automatic transmissions.

Typically, heavy vehicles are much harder on fuel than light ones, but the new Chinese standards permit the heavy vehicles to get only slightly worse gas mileage. As a result, they provide an incentive for manufacturers to offer smaller, lighter vehicles, which will be easier to design.

In a major departure from American practice, all new sport utility vehicles and minivans in China would be required to meet the same standards as automatic-shift cars of the same weight. In the United States, standards for sport utilities and minivans are much lower than for cars.

The Chinese rules do not cover pickups or commercial trucks. According to General Motors market research, there is little demand for pickup trucks in China except from businesses, because the affluent urban consumer who can afford a new vehicle regards pickup trucks as unsophisticated and too reminiscent of the horse-drawn carts still used in some rural areas.

Energy bill approved in House

By James Rosen, Sacramento Bee, Nov. 19

The House of Representatives passed a major energy bill Tuesday and moved to take up landmark prescription drug legislation in a Republican bid to pass two of President Bush's high-priority measures.

After the House voted 246-180 to pass a bill providing \$23 billion in energy-production incentives, the measure moved to the Senate for a vote as early as today. The House is also poised to act on a separate \$400 billion bill to cover medication costs for 40 million seniors, starting in 2006, and open Medicare to competition from private insurers.

With lawmakers hoping to adjourn for the year by Thanksgiving, pressure mounted on Democratic congressional leaders who are loath to deliver legislative victories to Bush on two key domestic issues as he heads into an election fight.

Bush turned up the heat in a statement from London, where he was visiting British Prime Minister Tony Blair.

"For the past two years, the passage of a comprehensive national energy policy has been a top priority for my administration, and I commend the House for its vote today and urge the Senate to

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act expeditiously as well," Bush said. "America will be more prosperous and more secure when we are less dependent on foreign sources of energy."

White House aides said Bush planned to engage in trans-Atlantic lobbying on both the energy and Medicare measures, calling House members and senators to urge final passage of both bills.

Some Democrats criticized the measures as huge government giveaways that would transfer billions of dollars to oil, gas and nuclear companies in the energy bill, and still larger sums to insurance and pharmaceutical giants in the Medicare legislation.

"Privatizing Medicare is not the solution to better drug prices," Sen. Tom Daschle of South Dakota, the Senate Democratic leader, told reporters. "This is basically a corporate welfare bill for drug companies and HMOs."

Daschle and other Democrats said the legislation would destabilize the Medicare program, increase premiums for seniors who remain in it and force them to enroll in private health plans.

Senate Majority Leader Bill Frist of Tennessee countered that the Medicare legislation "gives prescription drug coverage in an affordable, appropriate way that is voluntary, that does strengthen and improve Medicare, and that expands the opportunity of choice for seniors in ways that are truly historical."

The Medicare changes would take effect in 2006, but low-income seniors would get a special card sooner, enabling them to buy prescription drugs at discounts of 10 percent to 15 percent.

In a major compromise with Democrats, the plan to allow seniors to use private health insurers was scaled back from nationwide coverage to an initial "demonstration project" in six metropolitan areas that would be chosen once the law is in effect.

Republican lawmakers also made concessions to Democrats in the energy bill, adding \$5 billion in tax credits for producers of ethanol, a corn-based fuel substitute, and other renewable energy sources, along with \$1.5 billion in fuel efficiency and conservation incentives.

Some Republican fiscal conservatives in the Senate criticized the tax breaks, raising doubts over whether party leaders would have the required 60 votes to break a Democratic filibuster. Sen. John Sununu, R-New Hampshire, said as many as a dozen Republicans might oppose the energy bill.

Energy Secretary Spencer Abraham said the legislation would help avert the blackouts that have plagued many cities in recent summers.

"It balances the need for more conservation, on one hand, with the need for more energy production on the other," Abraham said. "It also supports our efforts to improve and bring reliability to the energy infrastructure."

Republican Rep. Richard Burr of North Carolina, a member of the House Commerce and Energy Committee, said: "It will begin our march toward energy independence and will best utilize all resources at our disposal to make sure that the lights stay on and the factories and small businesses stay open. "

Frist threatened to hold the Senate in session through the weekend and into next week in order to pass the measures, along with a large appropriations package.

A new Gallup Poll indicated that Republicans also face political pressures. Seventy-nine percent of Americans surveyed said they would be angry or upset if Congress adjourns without passing a

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prescription drug plan. And 43 percent of that group said they would blame the Republicans who control Congress, while 23 percent said it would be the fault of Democrats.

The decision by AARP, the 35 million-strong seniors' group, to back the Republican prescription drug legislation Monday stunned Democrats who have spent most of the last six years allied with the powerful lobbying organization.

AARP planned to launch a \$7 million, three-day TV ad campaign today, urging Congress to pass the Medicare measure.

At a forum hosted by AARP in New Hampshire, six of the nine Democratic presidential candidates criticized the group Tuesday for supporting the GOP version of Medicare reform.

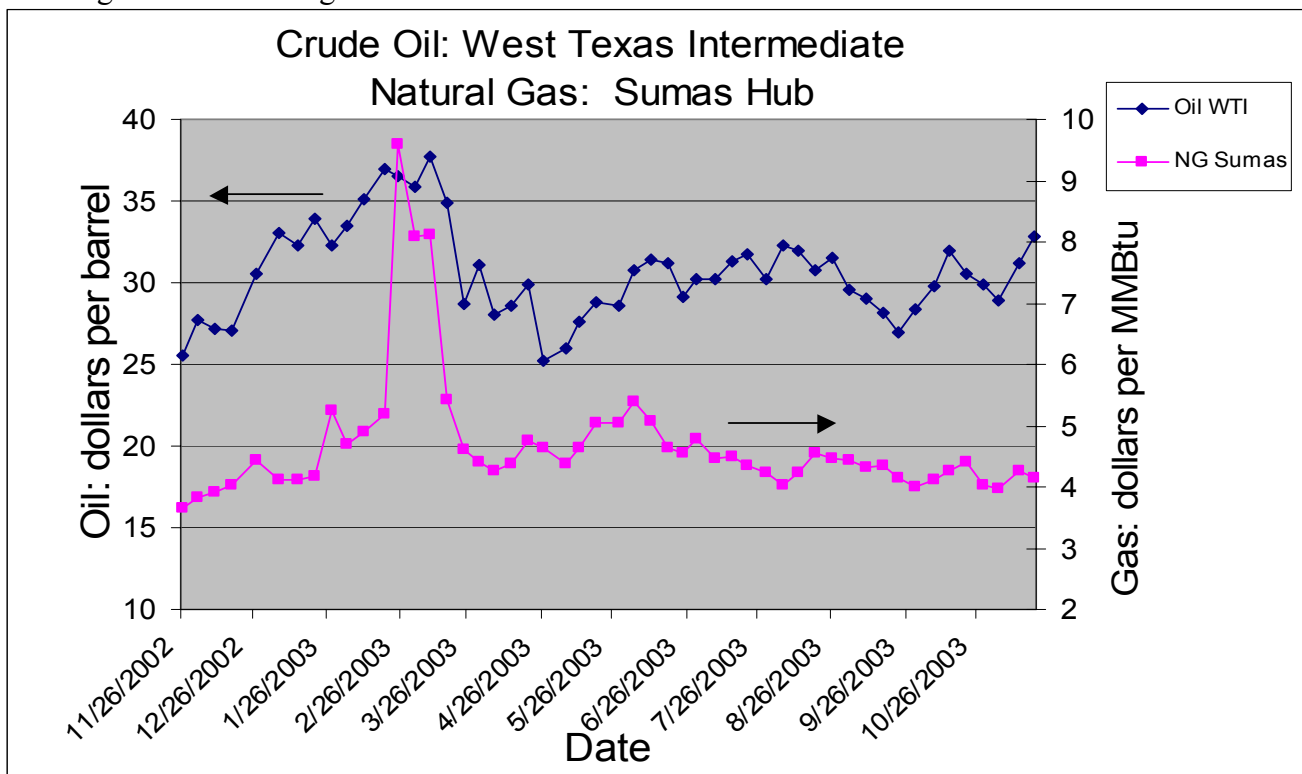
Daschle, Sen. Edward Kennedy of Massachusetts and Rep. Nancy Pelosi of California, the House Democratic leader, planned to attend a rally today at the Capitol organized by the Alliance for Retired Americans, a smaller group of seniors.

The Medicare and energy measures passed the Senate and House earlier this year, but they were changed significantly by conference committees that ironed out differences between the two chambers and tried to craft compromises to gain final passage on the unified measures.

Democratic congressional leaders weighed whether to mount filibusters against one or both bills in the Senate, which would require Bush's allies to find 60 votes -- eight more seats than the Republicans hold.

Daschle denied that political considerations were at work.

Oil prices have trended higher over the last 6 weeks, under pressure from higher demand, OPEC production cuts, and a weakening dollar. Natural gas prices have trended downward after winter storage inventories targets were exceeded.



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- Weekly Range at Mid-C: \$33.7-40.7 per MWh, Ave. = \$38.1
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- Natural gas, Sumas Hub: \$4.34 per million British Thermal Units (year ago \$4.07)
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- Energy News Headlines from the Nation
 - o Energy efficiency could gain favor (New York Times, Dec 1)
 - o Putin aide rules out Russian approval of Kyoto protocol. (New York Times, Dec. 2)
 - o China’s growing thirst for oil remakes market. (WSJ, Dec. 3)

4. River and Snowpack Information (Updated Nov. 04, 2003)

- Observed September stream flow at The Dalles: 63.4% of average
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6. Power Exchanged: (Dec 2, 2003)

- Average flow of power during the last 30 days
 - o California (exported to) 1,845 MW
 - o Canada (exported to) 102 MW
 - o Net power export: 1,947 MW

Energy Efficiency Could Gain Favor

By BARNABY J. FEDER, December 1, 2003

Energy experts anticipate that 2004, like every year before it, will be remarkable for how much energy Americans waste. But if energy prices climb as high as predicted, consumers are likely to pay more attention than usual to the opportunities to be more efficient, and retailers expect the results to show up at cash registers.

"We've planned for a rush to these types of products this winter," said Craig Menear, senior vice president for merchandising at Home Depot, which recently published a catalog highlighting energy-efficient products.

To understand the challenges facing energy-efficiency advocates, though, consider lighting. Sales of energy-efficient compact fluorescent lights are the fastest-growing segment of the market. But even in states like Wisconsin, where utilities have subsidized purchases of energy-efficient lighting for more than a decade, cheap incandescent bulbs outsell the newer technology by a four-to-one margin.

The Energy Department estimates that if every American homeowner simply replaced the incandescent lighting in his or her five most frequently used fixtures with compact fluorescents, the nation would save 800 billion kilowatt-hours of electricity consumption - the equivalent of shutting down 21 power plants. The cost of fluorescent bulbs is typically 8 to 10 times that of incandescents, but that initial outlay would be offset over time by their much longer life and by lower electricity bills. (As an added benefit, the Energy Department estimates, utilities would emit one trillion fewer pounds of the types of gases that contribute to global warming.)

While earlier generations of the bulbs did not fit inside many lighting fixtures, the newest designs are no bigger than the average incandescent bulb, and the industry has improved quality as well.

But no one is betting that the American lifestyle will change anytime soon to capture the potential savings. For one thing, if all households made the change, it would take about 500 million fluorescent bulbs to meet the department's goal. While manufacturers have been expanding their capacity, the total annual production capacity at the moment for such lighting is probably not much more than 55 million bulbs, according to Steve Goldmacher, a spokesman for Philips Lighting USA.

According to energy experts, lighting is just one of many fields where engineers and designers are inventing energy-efficient products faster than the products are being widely embraced. Sometimes the best-in-class technologies roll out slowly because of manufacturers; Toyota, for instance, has taken a cautious approach to expanding production and marketing for its sold-out Prius, a hybrid gasoline and electric car with a fuel efficiency that far surpasses that of anything Detroit has offered.

Next year will be the first year that all Toyota dealers in the United States can sell the Prius. While company officials here hope that shipments from Japan will rise to 36,000 from 20,000, American dealers will still not be able to get as many as they want, said Wade Hoyt, a spokesman for Toyota Motor Sales USA. Supplies are expected to be tighter for the first hybrid sport utility vehicle, a Lexus model that Toyota expects to begin importing next fall.

More often, though, the restraints lie with consumers. Most are reluctant to spend the money to replace inefficient equipment, like older air- conditioners or furnaces, with new designs until the

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old equipment breaks down, even when told that the new unit will pay for itself in savings within a few years.

Still, 2004 could be a relatively strong year for many energy-efficient products. Energy futures markets project high prices this winter for the fuels used to heat homes and run cars, as well as higher electricity prices. When prices jump, so does interest in efficiency.

"I would expect a lot more consumer interest in ways to cut their bills," said Steven Nadel, executive director of the American Council for an Energy Efficient Economy, a Washington-based clearinghouse. "There could also be more political interest."

The latter could lead to increases in the tax credits, rebate programs and other government subsidies that often play an important role in drawing business and consumer attention to energy-efficient products. State-mandated programs that were run through regulated utilities provided more than \$3 billion in subsidies to customers in more than 30 states a decade ago, but many were cut back or eliminated as the power industry deregulated, according to Marc Hoffman, executive director of the Consortium for Energy Efficiency, a nonprofit group in Boston.

Mr. Hoffman said that total spending on such programs dropped as low as \$500 million but has now climbed back above \$1 billion. The state programs frequently build on the federal Environmental Protection Agency's Energy Star rating program, which began by setting standards for energy-efficient computer screens in 1992. Energy Star standards are now available for 40 different home and office products.

In the coming year, the E.P.A. and a number of states will be pushing to extend the Energy Star concept beyond individual products to issues like how home design and insulation interact to affect energy use.

"The typical home has enough cracks in it that it's like having a window open all the time," said Kathleen Hogan, director of the E.P.A.'s Climate Protection Partnerships division, which oversees Energy Star.

SOME builders see a growing demand for energy-efficient homes. Veridian Homes in Madison, Wis., which built a prototype home using Energy Star and other environmental standards last year with the help of money from the Energy Department, has used the findings from that research "across the board," Jeff Simon, Veridian's vice president for operations, said.

In 2004, the company plans to build 640 such homes in and around Madison, as well as a solar-powered model home that would generate as much energy as it uses.

Zero-energy housing is also on the agenda in Austin, Tex., where Austin Energy, the city-owned power company, has become an industry leader in supporting efficiency programs.

"There's always a new field to be mined," said Roger Duncan, vice president for government relations, energy and environmental policy, citing the research of Amory Lovins. Mr. Lovins has argued since the early 1980's that thanks to technology, energy efficiency is an expanding resource with constantly improving returns on investment.

Putin Aide Rules Out Russian Approval of Kyoto Protocol

NYT, Dec. 2, 2003

A senior adviser to President Vladimir Putin said Tuesday that Russia cannot ratify the Kyoto Protocol limiting greenhouse gas emissions, dealing a mortal blow to the pact that required Russia's ratification to take effect. In its current form, the Kyoto Protocol places significant

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limitations on the economic growth of Russia," Putin's economic adviser, Andrei Illarionov, told reporters in the Kremlin. "Of course, in this current form this protocol can't be ratified." Putin had previously cast doubts on Moscow's willingness to ratify the protocol, but hadn't ruled out ratification completely.

The 1997 Kyoto Protocol calls for countries to reduce their level of greenhouse-gas emissions, which are seen as a key factor behind global warming.

To come into force, the pact must be ratified by no fewer than 55 countries, accounting for at least 55 percent of global emissions in 1990. Under the treaty's complex rules, the minimum can now only be reached only with Russia's ratification because the United States and several other nations have rejected the treaty.

At a U.N. climate conference in Milan, Italy, a Greenpeace official insisted that Russia's decision would not stop other nations' efforts to reduce greenhouse gases. "The encouraging news about this is that countries are going ahead with reducing their emissions without having Russia ratify," Steven Guilbeault said. Guilbeault said he thought Illarionov's stand was "a political comment in light of upcoming Duma elections" Sunday in the lower house of Russia's legislature.

The conference opened Monday, gathering government officials, activists and scientists, but doubt over Russia cast a cloud over it. Participants say they doubt any major breakthroughs will be achieved and that alternative strategies at keeping emissions cuts alive would be discussed in the corridors.

Russia's reluctance to ratify the pact despite its earlier pledge to do so has vexed Kyoto's European and U.N. backers, who warned Moscow that it would lose politically and economically if it fails to ratify Kyoto.

But Illarionov, who made his comments on the sidelines of Putin's meeting with European business executives in the Kremlin, said firmly that the pact was against Russian interests. "It's impossible to undertake responsibilities that place serious limits on the country's growth," Illarionov said. He added that it would be unfair to Russia to curb emissions and stymie its own growth while the United States and other nations which account for the bulk of global emissions refuse to join the pact.

The protocol's proponents see Kyoto as a vital first step in cutting emissions, warning that failure to quickly put it into force would trigger a dangerous, steep rise in greenhouse gas concentrations that would be far more difficult to control in the future.

China's Growing Thirst for Oil Remakes the Global Market; Beijing's Buying Keeps Prices High and Could Reshape Politics of Middle East

WSJ Dec. 3, 2003

With its factories working overtime, and its consumers on course to buy almost two million cars this year, China is developing a world-class thirst for oil. And its hunt for steady supplies is reshaping the global energy market, the environment and world politics.

China -- which this year surpassed Japan as the No. 2 petroleum user after the U.S. -- is increasing its oil purchases even faster than it is pumping up its brawny economy. Imports for the first 10 months of 2003 are up 30% from the year-earlier period. The International Energy Agency expects imports to double to some four million barrels a day by 2010. By 2030, the IEA expects China to

be importing about 10 million barrels a day, roughly what the U.S. brings in now. Domestic oil output, meanwhile, is flat.

From Houston to London to Moscow, oil companies are looking to secure market share in China, as China roams the world looking for oil fields to develop. Some fear that China, which doesn't have large strategic reserves of fuel, might grow so desperate for oil that it would battle the U.S. for influence in the Middle East or even trade weapons technology to terrorist states. Others are more optimistic, and think China will realize it has a vital interest in keeping the region stable.

"China is having an incredible influence on energy flows, not just in Asia but on a world-wide basis," Peter Davies, chief economist at BP PLC, told reporters on a recent trip to Russia, from where BP hopes to supply China with Siberian gas. "The whole center of gravity of the world energy market is changing."

So far, the most obvious impact has been on prices. In recent years, China has drawn fire in the U.S. and Japan for exporting deflation, as its factories pump out low-price T-shirts, sneakers, radios and other goods. In the \$1 trillion-a-year market for oil, the opposite is happening. This year and next, China is expected to account for about a third of the increase in global oil demand. China's purchases are an important reason OPEC, whose members regulate output to prop up oil prices, has been able to keep oil at or above \$30 a barrel for much of this year.

Chinese demand is also making geopolitical waves in the U.S. Last month, the U.S.-China Economic and Security Review Commission, a committee of congressional appointees, debated how China's thirst for oil would affect U.S. access to energy supplies. Last year, the Pentagon reviewed a report on what it would mean for U.S. national security if the Chinese and Saudis grew closer. Saudi Arabia, the world's largest exporter, is negotiating to build a huge refinery in China with Exxon Mobil Corp. The desert kingdom's state oil company has even begun sending students to Chinese universities to get undergraduate degrees and learn the language.

Meanwhile, China's mushrooming fleet of cars is adding to worries about this smokestack nation's impact on the environment. In the next decade, the number of cars on Chinese roads is expected to grow fivefold to 100 million, approaching half of the U.S. total, according to the Development Research Center, a government think tank. China is set to tighten its emission standards by 2005, and in 2008 it plans to introduce standards that could be even tougher than those in the U.S.

"If all our bicycles turn into our cars, that's a horrible figure," says Zhai Guangming, retired director of oil exploration at state-run China National Petroleum Corp. "It would scare the world."

The flip side of growing Chinese oil imports is increasing vulnerability. Used to having leverage over foreign multinationals seeking access to its market, China finds the shoe on the other foot as it is forced to compete with Japan and other buyers for oil. Chinese oil companies -- starting decades behind U.S. and European giants -- are struggling with limited success to acquire stakes in oil ventures overseas.

China is particularly exposed in the Middle East, the source of half its imports, pointing up a little-noted twist: China's energy lifeline is increasingly dependent on the U.S. fleets that guard the world's shipping lanes. Like Washington, Beijing will increasingly need stability in the Middle

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East to ensure reliable oil supplies at moderate prices. In the long run, this confluence of interests might tug Beijing closer to the U.S. But several analysts warn that China's thirst could lead to Beijing's emergence as a competitor for influence in the Middle East.

"Saudi Arabia could possibly begin looking to the Chinese for those economic, security and political needs it now garners from the U.S.," last year's Pentagon study noted.

Energy security has been gripping Chinese economic planners for years. Government economists long warned about the danger of importing growing amounts of oil because of the foreign exchange it sucked out of the country, and because of the dependence it created on volatile overseas markets. Importing oil stabbed at the heart of Communist Party notions of self-sufficiency.

In the past decade, technocrats concluded China couldn't go it alone. Domestic oil output peaked as demand soared. China's factories were gobbling up huge amounts of oil. The fuel is the key feed stock for petrochemicals, which the factories use to crank out plastics, mobile phones, toys and computer parts.

At the same time, the Asian financial crisis of the late 1990s brought about vast economic changes that led to increased demand for oil. Like smaller Asian countries, China was overly dependent on exports for growth and exposed to sudden slowdowns abroad. To stimulate the economy, Beijing began investing billions in infrastructure, encouraging bank lending and relaxing curbs on home purchases and auto production to get people spending. The moves sparked explosive sales in apartments and cars -- growth that filtered through the rest of the economy and led to quantum leaps in oil use.

"The only force that could help the economy grow at 8% is consumption," says Ma Xiaoye, a former economic official and now director of Academy for World Watch, a think tank in Shanghai. "We had no choice."

The challenges of fueling that growth are clear outside the capital in the shadows of Cat Ear Mountain, the site of the Beijing Yanshan Petrochemical Co. refinery. It was established in 1968 at the height of the Cultural Revolution, when self-sufficiency was China's watchword. The refinery became an island of industrial stability, expanding output even as political chaos enveloped the nation. Movie theaters, shops, schools and eventually a town sprang up around it. Trucks and later a pipeline solidified a supply link with the huge Daqing field to the northeast, the refinery's lone supplier.

These days, output from the Daqing fields is declining. "They are reducing crude-oil production every year," says Chang Jiang, a senior engineer at Beijing Yanshan. "So we are turning to Russia."

In July, the refinery, a unit of China Petroleum & Chemical Corp., or Sinopec, processed its first shipment of oil from Russia, the world's No. 2 exporter. In May, the Chinese and Russian presidents endorsed the idea of building a pipeline to supply Siberian crude to Daqing, which could then be fed to Yanshan. OAO Yukos, Russia's largest oil company, and CNPC, a Chinese oil giant, signed supply pacts promising to send 400,000 barrels of Russian oil a day via the pipeline,

slated to be built by 2005. In eastern Siberia, Yukos has stepped up its search for new oil reserves, setting up a camp for surveyors in the tundra.

But Russia may be an unreliable lifeline. Yukos's main shareholder, Mikhail Khodorkovsky, has been jailed amid a political battle with the Kremlin, casting doubt on the company's ability to keep pushing the China pipeline ahead. The Kremlin, meanwhile, has put the China project on hold while President Vladimir Putin mulls an alternate pipeline to Russia's Pacific port of Nakhodka, which has the advantage of being able to supply not only China, but also Japan and other Asian consumers. Japanese Prime Minister Junichiro Koizumi is lobbying hard for Nakhodka, pledging billions of dollars to help finance the pipeline. He even brought a judo master to a St. Petersburg summit in January to amuse Mr. Putin, himself a black belt in the sport.

The Chinese are scurrying for other deals. They are pressing for access to reserves in Iran, the second-largest exporter in OPEC after Saudi Arabia. In Iraq, CNPC is hoping the new government will stick by a deal inked in 1997 under which the oil company will develop Iraq's Al-Ahdab oil field. Beijing is pushing forward plans for a multibillion-dollar pipeline from oil-rich Kazakhstan, even amid doubts about the feasibility of the project. During a visit to Kazakhstan in June, Chinese President Hu Jintao signed an agreement to revive a long-delayed pipeline project that would pump oil across the Chinese border.

China's insecurity is making global oil czars nervous. Top on their list of worries: China, unlike other major industrial powers, lacks a large strategic reserve of oil to buffer the country during supply shocks. That gap alarmed the industrial world's energy watchdog early this year. As the U.S. and Britain prepared to invade oil-rich Iraq, officials at the International Energy Agency say they opened a dialogue with Chinese officials. The aim: to preclude panic buying of petroleum by China, which might roil an already-jittery world oil market.

Chinese officials are loath to discuss the politically charged topic of energy security. Oil czar Zhang Guobao -- the 59-year-old vice-minister of a super-agency whose purview includes autos, high-tech and energy -- turned down requests for an interview.

But pieces of a strategy are starting to emerge. The State Energy Administration, which Mr. Zhang also heads, plans to create a strategic oil reserve, but officials won't say how the agency will finance and build the stockpile. By 2005, China plans to store 50 to 55 days' worth of oil imports and 68 to 70 days' worth by 2010, according to Wu Kang, energy analyst at the East West Center in Hawaii.

In Washington, national-security strategists are sorting through a welter of possible consequences of Beijing's oil thirst. The study reviewed by the Pentagon last year, "Sino-Saudi Energy Rapprochement: Implications for U.S. National Security," concluded that the world oil market will be able to accommodate China. The study also predicted that Beijing is coming to share America's interest in ensuring the Middle East remains a reliable supplier of oil.

"We have common strategic needs," says Amy Jaffe, senior energy analyst at Rice University's Baker Institute for Public Policy and one of the authors of the study.

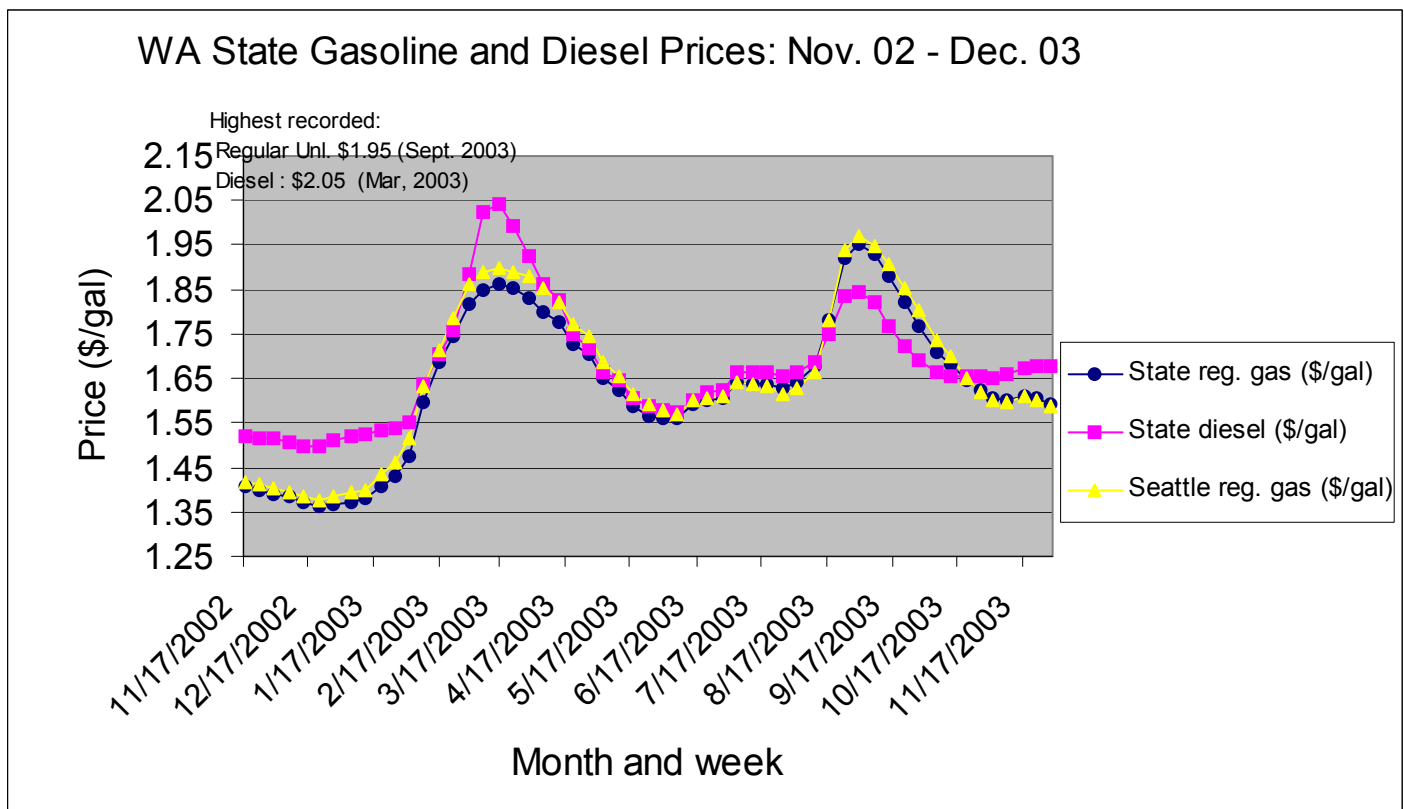
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Still, many analysts are wary of a Beijing that could begin to feel boxed in by its energy needs. The study noted that China might emerge as a major arms supplier to the Saudis. Other analysts fear that China might be tempted to trade weapons technology for access to oil in countries such as Libya and Iran.

More than 60 years ago, another emerging Asian power felt squeezed on energy: Japan. The U.S. responded to Japanese aggression in East Asia by imposing a natural-resources embargo on Tokyo, which hit back by attacking Pearl Harbor. Kent E. Calder of Johns Hopkins University's School of Advanced International Studies says those events point a way forward for China and the U.S. as they seek to head off future conflict.

"Obviously, historical parallels are never exact," Mr. Calder told the congressional commission last month. "Yet Japan's belligerence when it was vulnerable suggests that taking positive steps to support China's energy security can be in America's national interest."

Gasoline and diesel prices have stabilized, but will probably increase slightly during the holiday season as travel increases.



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- Power Pool peak load (Tuesday, 12/16): 52,542 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: \$35.8-40.3 per MWh, Ave. = \$37.5
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 - o Most recent rotating blackouts: Tuesday, May 8, 2001
- Energy News Headlines from the Nation
 - o Memo to BPA (Seattle PI, Dec 4)
 - o Knotty problem: If an Oak Eats CO2 in a Forest, Who Gets Emissions Credit? (WSJ, Dec. 10)

4. River and Snowpack Information (Updated Dec. 16, 2003)

- Observed October stream flow at The Dalles: 109.3% of average
- Observed November precipitation above The Dalles: 109% of average
- Federal hydropower generation: November 6,823 aMW

5. Energy Conservation Achievement (Updated Nov. 12, 2003)

- **State Agencies:** From July thru Sept. 2003 electrical usage was 8.9 % less and natural gas usage was 2.3% more compared to the same period in 2000.

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- Average flow of power during the last 30 days
 - o California (exported to) 2,278 MW
 - o Canada (imported from) 195 MW
 - o Net power export: 2,083 MW

Memo to BPA: Follow law for rate relief

By TOM CASEY
GRAYS HARBOR PUD COMMISSIONER

BPA administrator Stephen Wright recently challenged consumer-owned utilities to propose an alternative vision for the settlement of pending litigation (BPA settlement deserves green light, Nov. 19).

A settlement is not necessary for the region to enjoy the benefits of a 10 percent rate decrease. All that is required is for the Bonneville Power Administration to honor the terms of its contracts. The BPA has no authority under these contracts to implement the most recent rate increase. Simply adhering to the terms of the contracts would result in a region wide wholesale rate decrease of 10 percent. We support the Nov. 14 action by the Washington PUD Association to pursue an "effort to achieve a fair settlement." Our vision is a settlement that is just, reasonable and capable of gaining universal support. More important, it would be based on a fair reading of existing federal statute. The BPA's proposal meets none of these criteria.

An alternative for a settlement based on a fair reading of the 1980 Regional Power Act is outlined here:

All BPA payments to investor-owned utilities that are not authorized by the regional power act would be stopped immediately.

According to BPA's own numbers, payments to private utilities went from about \$70 million per year in 1997-2001 to more than \$400 million per year in 2002-2006. This money has to come from somewhere, and right now it's coming from the customers of consumer-owned utilities, whose rates from the BPA have gone up by almost 50 percent since October 2001.

Even if the IOUs were allowed to keep what they've already received, savings to the BPA's other customers (the community-owned utilities who are picking up the tab for these outrageous deals) would be on the order of \$1 billion over the next three years.

The \$200 million payment Wright promised to the private utilities if we refuse to dismiss our lawsuit would be dropped.

This payment clearly is being used to pressure consumer-owned utilities to settle for a deal that is much less than fair. It is extortion.

It is ironic that the elimination of this "poison pill" accounts for the only real savings that result from the BPA's proposed settlement. The rest of the so-called savings are actually costs that are deferred to a future date. Eventually, we will have to pay most of it back, with interest.

A federal agency such as the BPA has no business imposing penalties on consumer-owned utilities for challenging actions that we believe are unfair and unlawful. It is an affront to fairness and decency, and all parties should be willing to forgo this payment to facilitate a truly fair settlement.

From this point forward, the BPA should be required to follow federal statute in determining IOU benefits.

The BPA's blatant disregard of the 1980 Regional Power Act is the reason we're in this mess today. Federal statute stipulates how the BPA will calculate benefits to private utilities. It was completely

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ignored in 2000 when new contracts were negotiated by the BPA. This was wrong. We should all agree, simply and honestly, to adhere to federal statute from this point forward.

This simple, fair proposal provides immediate rate relief for all customers. It provides more than \$1 billion in cost reductions over the next three years for the BPA. It allows for continued payment of benefits to the residential and small-farm customers of private utilities as authorized by the 1980 Regional Power Act.

And all we really have to do is follow the law.

Knotty Question: If an Oak Eats CO2 in a Forest, Who Gets Emissions Credit? WSJ Dec 10.

On the same afternoon this fall that the Senate was debating whether to force U.S. companies to cut their carbon- dioxide emissions, Gary Kaster was tromping around dirt fields here in the Mississippi River Delta, hunting for a cheap way to help get the nation's power industry off the global-warming hook.

"This is what our carbon units are going to look like," the 56-year- old forester said, approaching an oak that had shot up to a height of about 12 feet in eight years. He took out his digital camera and snapped a shot to send to his bosses at American Electric Power Co. AEP emits more CO2 than any other power company -- and probably any other company -- in the U.S., the biggest CO2-emitting nation in the world.

Even though the Bush administration is rejecting international efforts to cap CO2 and other greenhouse gases, the U.S. power industry expects to get hit sooner or later with some sort of limit. So the industry is looking to trees to hedge its bets.

Trees sop up CO2, believed to be the main culprit in global warming. They store the carbon in everything from the roots to the trunk to the leaves. With its fertile soil and its long growing season, the delta is one of the most efficient places in the U.S. to grow trees. And, because of massive tree cutting in the area during the 1960s and 1970s, the delta needs reforestation. The power industry figures it's the perfect place to grow some carbon packing forests -- known as "carbon sinks."

But the industry is discovering that planting trees as carbon sinks raises all sorts of knotty questions. How do you count the amount of CO2 the trees soak up? What happens when the trees that store the most carbon aren't the best trees for a local ecosystem? Should a company get credit for helping plant trees on land that the government is already paying owners to reforest?

The U.S. power industry sees trees generating low-cost global- warming credits as an insurance policy against a potential CO2 cap while it works to bring down the cost of what it concedes is the ultimate solution to global warming: cleaner ways to make electricity in the first place.

The industry estimates that building cleaner power plants would cost between \$50 and \$75 per ton of CO2 avoided. AEP says growing trees is costing \$1 to \$2 for each ton of CO2 taken in. AEP,

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based in Columbus, Ohio, is a holding company for public utility subsidiaries in 11 states. It emits about 167 million tons of CO₂ every year, or 3% of the U.S. total.

Under proposed U.S. clean-air legislation, if a utility reduces emissions below the federal limit, it would have an emission credit it could sell or use at another facility. The Kyoto Protocol, a proposed international treaty geared to reducing global warming, would offer a similar system.

The industry argues that, unlike localized pollution such as smog, global warming is a planetary phenomenon, which means the atmosphere doesn't care whether CO₂ emissions are trimmed in Ohio or swallowed in Louisiana.

Even AEP, however, concedes that trees offer only a small fix. "We would have to plant an area the size of the state of Ohio to offset one power plant," Mr. Kaster says. But, he adds, "these are the most cost-effective tons you can get."

AEP this year pledged to cut its CO₂ emissions by 1% in each of the next four years as part of the Chicago Climate Exchange, a voluntary pilot program organized by several big industrial companies that amounts to America's first trading floor for CO₂ credits. It's an attempt by industry to start reducing its emissions ahead of what it figures is a coming cap, and to ensure any such cap gives industry credit for actions it has already taken to address global warming.

AEP already has met at least the first two years of its four-year commitment -- largely because it's making less electricity than it was a couple of years ago, but partly because it shaped the exchange's rules to give it credit for the carbon sinks it has planted.

AEP and several other U.S. power companies began planting forests to capture CO₂ in the mid-1990s, when the assumption was that the U.S., under President Clinton, would ratify the Kyoto treaty. It did the bulk of that tree planting abroad, in areas such as Brazil where land is cheap and the growing season is long, because the Kyoto treaty proposes crediting industrialized countries -- and thus their companies -- for carbon sinks they plant in the developing world. Now that it's clear the U.S. won't ratify Kyoto, the industry is concentrating its tree planting in the U.S. It's pitching its effort as support for President Bush's voluntary approach to global warming, but it's also hoping to shape the CO₂ cap it assumes is only a matter of time.

So far AEP has spent \$17 million to reforest about 52,000 acres. It says that's enough to absorb 11 million tons of CO₂ during several decades -- enough to offset the CO₂ that just one of its big power plants emits in about 16 months. AEP has spent a further \$6.8 million to help protect existing forest in a national park in Bolivia that now includes about four million acres. But because of the way the Kyoto Protocol's rules are shaping up, the company doesn't expect to see any Kyoto credits for that investment.

Indeed, it's unclear which of AEP's forests will count where it really matters: under a future U.S. government or global CO₂ cap. The Chicago Climate Exchange is the industry's way of trying to persuade regulators that carbon sinks are legitimate. Hashing out those rules, for the countries that participate in the Kyoto Protocol, is on the agenda of a major conference the United Nations is holding on the treaty this week in Milan.

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President Bush announced soon after taking office that he was rejecting the Kyoto treaty, saying the CO2 cuts it mandates would hurt the U.S. economy. And Russia is sending mixed signals about whether it will ratify the pact. To take effect, the treaty must be ratified by industrialized countries that together emitted 55% of total global-warming gases in 1990. Without Russia, the treaty won't meet that threshold.

The Bush administration has set a voluntary global-warming target that is less stringent than Kyoto, and the White House is encouraging companies to plant carbon-eating forests to help meet it. But the plan lacks specifics.

"We're just flapping in the wind, hoping we're heading in the right direction, without rules," Mr. Kaster says.

Mr. Kaster has traveled around the world setting up forests to capture CO2. Now, because the Bush administration has signaled that it wants the industry to concentrate its efforts to mitigate global warming within the U.S., Mr. Kaster is focusing on the Mississippi River Delta. He has been scouring the region on behalf of PowerTree, a new power-industry consortium that aims to plant six forest sinks in the region, one of them as soon as this month.

The delta is a valley about 100 miles wide that lies between the Ozarks and the Appalachians, bisected by the Mississippi River. Landowners began cutting down trees on high ground in the delta well before the Civil War to make way for cotton plantations. But deforestation really took off in the 1960s and 1970s, when soybean prices shot up and the U.S. government boosted certain subsidies, suddenly making it profitable for land owners to clear and farm the flood-prone bottomlands. Today, across the delta's 26 million acres, only about four million acres of forest remain.

Quantifying how much CO2 a forest absorbs is an inexact science. Early on, the industry asked researchers at Louisiana Tech University to estimate how much CO2 a delta bottomland hardwood forest would capture over the roughly 70 years it would take to approach maturity. The academics put the figure at about 600 tons of CO2 per acre.

But experts the industry hired in an effort to give its tree planting credibility thought that number was too high. One was Winrock International, a Little Rock, Ark., nonprofit that promotes development in poor areas around the world. Winrock's foresters set off for mature forests throughout Arkansas, Mississippi and Louisiana. There, they set up "nested plots," test beds from which to extrapolate how much carbon was being stored. They came up with a figure of about 300 tons of CO2 per acre of trees.

To confirm its projections, Winrock these days is measuring CO2 take-up in stands of forest the industry has planted during the past few years. On a recent afternoon in southern Indiana, Matt Delaney, a Winrock forester who does much of the organization's fieldwork, was setting up plots on a project planted with funding from Cinergy Corp., the big Cincinnati-based utility.

Mr. Delaney set posts at locations chosen randomly using a global-positioning-system device and software, then checked the trees at those locations. Variations in the soil across the Cinergy site visibly affected the young trees' growth -- and presumably will continue to do so for years to come.

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Where the surface soil contained more clay, the trees were often waist-high. But in one area that had been covered with sand deposits from a nearby river, the trees were much smaller.

The upshot: There are no firm numbers for how much CO₂ trees take up. It also isn't clear which trees work best for both storing carbon and serving the environment. A major objection raised by foes of forest sinks is that, in certain parts of the world, companies have planted "monocultures," essentially plantations with row upon row of a single fast-growing species. These species -- a common one is eucalyptus -- snag a lot of CO₂ quickly, but they do little for local wildlife.

The delta's damaged ecosystem requires a mix of native species similar to what grew there originally. That means hardwoods. They pack in more carbon, but they take longer to grow.

The power industry's new trees also raise the contentious issue of mixing federal subsidies and corporate gain.

Last week, the Bush administration enthusiastically endorsed the concept of landowners using taxpayer money to reforest their land and then pocketing the proceeds from the sale of any resulting carbon rights. Under a popular federal program that pays landowners for 15 years to replant their property with trees, the Agriculture Department signaled that for 500,000 of the new acres, it will give preference to landowners planting bottomland hardwoods in areas such as the Mississippi River Delta. And it will explicitly permit those landowners to sell whatever carbon rights the trees generate "to energy companies or whomever they choose," the department noted in a press release.

The announcement has angered many environmentalists. They say the federal subsidy could enable big CO₂ emitters to get credits at a lower cost. Environmentalists also question whether the carbon market is doing much to help reforest places such as the delta if companies generate their carbon credits from land that the taxpayers were already helping reforest.

"Is there any additional greenhouse-gas benefit from a fully enrolled farm-bill program? I don't think so," says Tia Nelson, director of the climate-change program for the Nature Conservancy, an environmental group based in Arlington, Va., that's working with AEP to plant its forestry sinks and is talking to PowerTree about planting more of them. "If we don't get the rules right at the beginning, it will call into question the integrity of an otherwise promising mechanism" to deal with global warming.

Bill Hohenstein, director of the Agriculture Department's global- change-program office, says the rationale is that landowners probably won't demand so much money from the federal government to reforest their land if they know they can sell the forests' carbon credits to industry. "The federal dollars can be used more efficiently if we can leverage the resources from the private sector," he says.

AEP's Mr. Kaster is inclined to keep PowerTree's money clear of land that is receiving federal reforestation subsidies. Even if such land does qualify under a future federal CO₂ cap, he worries that the companies he works for will appear tainted in the eyes of the public.

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He also notes, concerning the carbon rights, that the Agriculture Department "didn't necessarily say that the United States government will count them or register them or respect them as viable, tradable credits" in the event of a future CO2 cap.

Mr. Kaster figures a cap is coming. The Senate rejected a proposed cap by a 55-43 vote, which he regards as a fairly narrow difference. "A few changes and it could well be the opposite," he says.

AEP officially was neutral on that CO2 bill -- a big change from its traditional opposition to CO2 caps. Dale Heydlauff, AEP's senior vice president for governmental and environmental affairs, says the company switched its stance because the bill's sponsors had revamped the measure, making its forced cuts less onerous than those AEP already had voluntarily agreed to under the Chicago Climate Exchange.

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 - o Whitehouse attacked for letting states lead on climate (New York Times, Dec 11)
 - o Panel shifts stance on global warming (WSJ, Dec. 17)
 - o Green power jumps to No. 2. (Canadian Newswire, Dec. 16)

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White House Attacked for Letting States Lead on Climate

By ANDREW C. REVKIN and JENNIFER 8. LEE, NYT, December 11, 2003

Several times at the talks now going on in Milan over a global warming treaty, Bush administration officials have portrayed states' actions to curb heat-trapping gases as evidence of American resolve.

But in this country, officials in many of those same states are strongly criticizing the administration's statements, saying their efforts are no substitute for federal action.

The focus of the criticism is a speech in Milan last Thursday by Dr. Harlan L. Watson, the administration's chief climate negotiator. Listing a variety of initiatives begun by states and communities, he said they were like "laboratories where new and creative ideas and methods can be applied and shared with others and inform federal policy - a truly bottom-up approach to addressing global climate change."

But in Washington State, Gov. Gary Locke, a Democrat, said the administration was using state initiatives as cover for its own inaction.

"The states are taking action for one simple reason - because the federal government is not," Mr. Locke said. "For the White House to say it is looking for leadership from the states is just an excuse to delay and procrastinate. We are limited in what the states can do. We need a national policy to address global warming."

Administration officials and some industry groups say that Mr. Watson had it just right - that having the states take the lead is in the best federalist tradition.

Still, even some groups often critical of environmental regulations said the speech would cause trouble for the administration at home.

"It's not surprising that the administration, when it goes in front of an international body like this, is going to brag about all the initiatives undertaken on global warming at the state level," said Jerry Taylor, director of natural resources studies for the libertarian Cato Institute. "What's the alternative? To go and say we're taking no significant steps and don't intend to in the near future?"

The text of the speech is online at www.state.gov/g/oes/rls/rm/2003/26894.htm.

Some Republican governors are distancing themselves from the administration's Milan position without directly criticizing it.

"They have not yet taken climate change on as a real issue and developed policies," a senior aide to one such governor, George E. Pataki of New York, said, speaking on the condition of anonymity. "We are going to keep pushing them."

Mr. Pataki has led an effort to institute a 2005 regional cap for heat-trapping emissions for states from Maryland to Maine, and is pursuing New York legislation similar to California's new law requiring curbs in such emissions from cars. Mr. Pataki also supports a federal limit on emissions of carbon dioxide, the dominant heat-trapping gas, from power plants as part of a broader cleanup of the plants.

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The Bush administration opposes mandatory limits on the gases and state efforts to curtail such emissions from cars. None of Mr. Pataki's proposals involving mandatory curbs were among the projects described by Dr. Watson, who focused on voluntary plans like inventories of the gases.

Erin M. Crotty, Mr. Pataki's environment commissioner, declined yesterday to discuss the Bush administration's position. "I'll just say from our perspective New York will continue to be a leader," she said.

The Milan meeting, which ends Friday, is intended to gauge countries' progress under the 1992 Framework Convention on Climate Change, and to hash out details of the 1997 Kyoto Protocol, an amendment to the original pact requiring cuts in gas emissions by industrialized countries.

The 1992 treaty calls for voluntary action to avoid "dangerous" human interference with the climate. President Bush has said he intends to adhere to that treaty, but has rejected the Kyoto pact because it does not apply to China and other developing countries and because he says it could hurt the nation's economy. Last week, Russia also indicated that it would reject the treaty.

The American delegation in Milan has faced withering criticism throughout the meeting for its position on the Kyoto treaty, and American officials said that Dr. Watson's comments were intended to illustrate that the country was doing things now to deal with warming.

"We're continually getting criticized that we're not doing anything practically at any level except pie-in-the-sky far-out research stuff which won't have any near-term impact," an American representative at the meeting said.

In a telephone interview, Dr. Watson said his statement was meant to reflect that "there is a broad effort going on in the United States on many levels to address global climate change."

Dr. Watson, a physicist, heads a National Security Council committee on climate policy and has participated in international climate talks for more than a decade.

Among domestic climate initiatives described by Mr. Watson in Milan were programs in 13 states requiring utilities to produce increasing amounts of power using nonpolluting sources like the wind and sun. President Bush signed one such program into law as governor of Texas.

But yesterday, environmental groups pointed out that the administration had successfully sought to exclude similar federal standards from its energy bill, which fell short of passage last month.

Many officials and private groups working on climate policy argue that scattered state and local actions are not an effective way to deal with gases, like carbon dioxide, that flow every time a fossil fuel is burned, stay aloft for up to a century, and drift throughout the atmosphere. A dozen states and three cities recently filed suit against the administration in an effort to compel it to regulate greenhouse gases.

"Nobody wants a situation where there are 50 different states dealing with climate on their own," said Joel Levin, the vice president for business development of the California Climate Action Registry. This nonprofit group, created under state legislation, enlists companies to tally and register their emissions of greenhouse gases, a prelude to cutting emissions and getting credit for the change.

Panel Shifts Stance on Global Warming

WSJ, Dec. 17, 2003

The world's largest organization of earth, ocean and climate scientists says it is now "virtually certain" that global warming is being caused by emissions of greenhouse gases and that the warming will continue.

The new position statement, released today by the American Geophysical Union, is a departure from its previous position, which left open the possibility that natural variation was causing recent temperature increases. The shift may further isolate skeptics who have argued that rising global temperatures may not be due to the burning of fossil fuels like coal and oil.

"This is an unambiguous statement that human effects have been identified," said Marvin Geller, an atmosphere researcher at the State University of New York at Stony Brook, who chaired the AGU's Climate Change Panel, which released the position statement. The AGU's statement reflects evidence accumulated since the group's last policy statement in 1998, he says. The AGU represents 41,000 scientists world-wide.

No scientific theory is ever beyond question, and opponents of regulatory solutions to the warming problem have seized on uncertainties. Just last week, Sen. James Inhofe, (R. Okla.), and other members of the Senate and House held a news conference at a United Nations global-warming conference in Milan at which they repeated their argument that big scientific questions remain about whether humans are contributing to climate change. "The science is flawed; it is anything but certain," Sen. Inhofe said, criticizing the Kyoto Protocol, the proposed international treaty curbing global- warming emissions from industrialized nations.

The scientific committee that drafted the statement includes John Christy, a University of Alabama, Huntsville, climatologist who has often sided with warming skeptics in the past. But scientific dissent now increasingly involves details of the warming phenomenon, not the basic result that man-made gas emissions are a probable cause of the warming trend.

Carbon dioxide, methane and other greenhouse gases raise temperatures by insulating the planet. Surface temperatures have increased by more than one degree since 1900, with much of that increase in the past 30 years. Meteorologists now regularly report record-setting average temperatures, with 2003 ranking as the third- warmest year since modern temperature readings began.

Despite the scientific consensus, there is still little agreement on how to address the warming problem. Nor are there quick remedies. Partial solutions include improved land practices, technologies for removing carbon dioxide from the air, decreasing fossil-fuel use or shifting to sources such as wind, solar or nuclear power.

Green Power Jumps to No. 2 Most-Commonly Offered Utility Product, According to Chartwell Report

Dec 16, 2003 Canadian Newswire

Green power or renewable energy stands out in Chartwell's annual products and services survey as the residential product that has seen the most growth and interest over the past several years, according to Chartwell's latest report, Utility Green Power Programs. In fact, green power is now the second most-commonly offered product among the list of 19 products/ services Chartwell asked utilities about on its 2003 survey.

In 2001, only 22% of utilities offered green pricing. Another 24% were planning or considering it. By 2002, 30% of utilities Chartwell surveyed were offering green or renewable energy; 32% were planning or considering it. In the 2003 survey, 43% of utilities are offering green power; 32% are planning or considering it.

Utility Green Power Programs not only reveals and analyzes Chartwell's survey data about the utilities offering this product, but also analyzes their participation rates and determines that the mean participation rate is only about 0.5% of customers. Remember, however, in this early stage of the game, many utilities offer only a limited supply of green power or can accept only so many participants into the program.

Also included in Utility Green Power Programs is information on launching and marketing a green pricing program, targeting green power buyers, and state government requirements, as well as a listing of utilities' and other organizations' activities surrounding green power.

Chartwell's best practices research features case studies and spotlights important initiatives within the industry. This report includes in-depth case studies on the successful green pricing programs at Austin Energy and Niagara Mohawk, as well as an examination of an Iowa wind farm project involving seven cooperative utilities.

Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (Tuesday, 12/30): 53,329 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: \$36.5-46.2 per MWh, Ave. = \$39.4
- Approximate change from previous week \$+1.9 per MWh
- "Normal" price range, before 5/00 \$20-\$40 per MWh
- Petroleum, West Texas Intermediate: \$32.40 per barrel (year ago: \$27.10)
- Seattle gasoline price (12/30) \$1.51 per gallon (year ago \$1.38),
- Natural gas, Sumas Hub: \$5.62 per million British Thermal Units (year ago \$4.07)
- Approximate change from last week. Oil: -0.78 \$ per barrel; Nat. gas: +1.28 \$ per MMBtu

3. California Electricity Situation

- CA ISO Alert Status
 - o A stage 1 alert (7% reserve margin) was declared on May 28, 2003.
 - o A stage 2 alert (5% reserve margin) was declared on July 10, 2002.
 - o Most recent rotating blackouts: Tuesday, May 8, 2001
- Energy News Headlines from the Nation
 - o Wyoming wind farm almost ready (Columbian, Dec 29)
 - o US energy- savings program stalls (Knight Ridder, Dec. 29)
 - o

4. River and Snowpack Information (Updated Dec. 16, 2003)

- Observed October stream flow at The Dalles: 109.3% of average
- Observed November precipitation above The Dalles: 109% of average
- Federal hydropower generation: November 6,823 aMW

5. Energy Conservation Achievement (Updated Nov. 12, 2003)

- **State Agencies:** From July thru Sept. 2003 electrical usage was 8.9 % less and natural gas usage was 2.3% more compared to the same period in 2000.

6. Power Exchanged: (Dec 30, 2003)

- Average flow of power during the last 30 days
 - o California (exported to) 2,427 MW
 - o Canada (imported from) 397 MW
 - o Net power export: 2,030 MW

Wyoming Wind Farm Almost Ready

Columbian, Dec. 29

Wyoming's largest wind farm a \$150 million, 144- megawatt project in Uinta County is nearly complete and slated to go online by the end of the year.

Construction on the 80-wind turbine facility along the Bear River Divide northeast of Evanston wrapped up recently on time and under budget. Crews were busy testing the facility this week, said Steve Stengel, spokesman for FPL Energy, a Florida-based utility that built the farm and will operate it.

Two years in the works, the wind farm is the third and largest in Wyoming. Its turbines are capable of powering 43,000 homes.

Their blades encompass an area 262 feet in diameter and spin 17 times per minute, slower than most wind turbines but safer for birds and more efficient. The technology has been used in Europe and California.

"The actual construction process was about 112 days and, given some of the weather conditions up there with the snow, the construction team did a really outstanding job getting the facility ready to go," Stengel said.

The project, on state and private grazing land, was made possible by the Legislature's approval of a measure that provides a tax break on equipment purchased to produce electricity from renewable energy.

Portland-based PPM Energy, a division of ScottishPower, will purchase the power from the Uinta County site and market it to customers in Wyoming, Utah and Colorado.

PPM spokeswoman Jan Johnson said interest in wind energy is increasing, partly due to advances in technology, larger wind farms and the volatility of other energy markets, such as natural gas.

"One thing about wind power is there's no fuel cost, so there's no volatility," she said.

Uinta County was chosen because of its relatively high wind speeds and distance from bottlenecks in the electricity transmission system.

FPL worked with the U.S. Fish and Wildlife Service and Wyoming Game and Fish Department to determine best placement of the turbines to reduce danger to birds.

U.S. Energy-Saving Program Stalls

Knight Ridder News Tribune, Dec. 29

Dec. 29--WASHINGTON--A national program that for more than a decade has made federal buildings more energy-efficient and saved the government millions of dollars is trapped in limbo, its future tied to the stalled energy bill.

The program, which totaled \$1.3 billion worth of projects in the past five years, allows private companies to install energy- efficiency upgrades in government buildings at no cost to taxpayers. The private-public partnership benefits the federal government, which pays no upfront fees, and the contractors, who are reimbursed with the savings the facilities accrue after the upgrades.

Wednesday December 31, 2003

The program was created by Congress as a temporary measure, and the federal government's authority to enter the contracts expired in September.

A provision added to the comprehensive energy bill would reinstate the program permanently, but the controversial bill was blocked by a November filibuster in the Senate.

Work can continue on contracts signed before the end of September, but more than 50 projects for more than \$300 million are on hold until Congress renews the program.

The Energy Savings Performance Contracts represent "a win-win situation," said Doug Sattler of Cogenex, a company whose project to upgrade Chicago's Social Security Administration building on Madison Street is frozen.

The \$1 million project to improve lighting, heating and cooling systems would have cut energy costs by more than \$180,000 in the first year, Sattler said.

Improvement projects generally involve anything from replacing light bulbs to updating boilers.

Mark Wagner of Johnson Controls, another contractor, said that although his company's \$2.3 million initial project at Argonne National Laboratory in Illinois is under way, negotiations for further energy upgrades are blocked until the program is reapproved.

Work in progress at Argonne includes upgrades to lighting, heating and ventilation systems that are expected to cut energy bills by about \$312,000 a year, Wagner said.

Energy upgrades can save government buildings, military offices and hospitals 15 percent to 25 percent a year on electricity bills, Wagner said.

The cuts are welcomed by the private sector, taxpayers, environmentalists and the federal government, which is the largest electricity consumer in the United States, said Kara Saul Rinaldi, director of policy at the Alliance to Save Energy.

According to a 1998 study by that group, the government wastes more than \$1 billion every year through inefficient energy use.

"Tax dollars are going out federal windows," Rinaldi said.

Congress approved the energy-efficiency program in the early 1990s and gave it a five-year trial. The program, which was renewed in 1997 for another five years, requires congressional approval because its contracts commit the government to future payments.

Government officials recognize the value of the program.

"Getting money to do projects, even ones that aren't so big, is not an easy thing," said one government building manager who asked not to be named.

"When you can pull the stuff together," he said, "you'll get the savings."

Wednesday December 31, 2003

Gasoline prices continue their winter decline, which is a typical annual pattern. The diesel price trend is flat so far this winter, which is also typical, as diesel competes with home heating oil demand.

